



Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

March 1, 2000

Mr. Gill Hunt  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West Temple Suite 1210  
PO Box 14501  
Salt Lake City, Utah 84114-5801

**RECEIVED**

**MAR 07 2000**

**DIVISION OF  
OIL, GAS AND MINING**

Re: **APPLICATION FOR PERMIT TO DRILL**  
**Emery County Utah**  
**Section 11, Township 18S, Range 7E**  
**Saltwater Disposal Well #3**

Please find enclosed the State of Utah, Division of Oil, Gas and Mining Form 3 Application For Permit To Drill Or Deepen (in triplicate) for Texaco Exploration and Production, Inc.'s proposed Salt Water Disposal well #3 located in Emery County at the above referenced location. Mr. Chuck Snure, of our Denver office, will be forwarding you the necessary paperwork for the state access road right-of-way as indicated on attachment #1 of the enclosed APD packet.

If you have any questions or need additional information, please contact Richard Carr (ext 12) or myself (ext 20) at the above number.

Allen R. Davis  
Farmington Operating Unit Team Leader  
Texaco Exploration and Production, Inc.

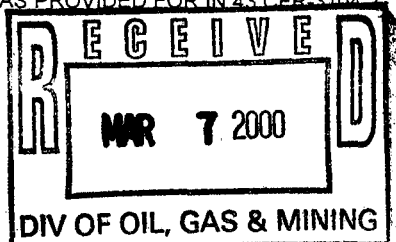
RNC/rnc

Describe Proposed Program: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured true verticle depths. Give blowout preventer program, if any.

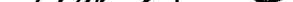
TEXACO EXPLORATION & PRODUCTION, INC. PROPOSES TO DRILL A WATER DISPOSAL WELL TO A DEPTH OF 7400' WITH THE NAVAJO FORMATION BEING THE ZONE OF DISPOSAL. ANTICIPATED TOP OF THE NAVAJO FORMATION IS 6850' AND THE BASE BEING 7300'. IF THE WELL IS INCAPABLE OF WATER DISPOSAL, IT WILL BE PLUGGED AND ABANDONED AS PER STATE OF UTAH REQUIREMENTS.

PLEASE BE ADVISED THAT TEXACO EXPLORATION & PRODUCTION, INC. HAS BEEN AUTHORIZED BY PROPER LEASE INTEREST OWNERS TO CONDUCT OPERATIONS ON THE ABOVE MENTIONED LOCATION. TEXACO EXPLORATION & PRODUCTION, INC. AGREES TO BE RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR OPERATIONS CONDUCTED UPON THE LEASE LANDS.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY BOND NO. ~~GO-0058~~ (NATIONWIDE BOND). THE PRINCIPAL IS TEXACO EXPLORATION & PRODUCTION, INC. VIA SURETY CONSENT AS PROVIDED FOR IN 43 CFR 3104.2. *✓- 0 1/4 02/18*



\*Fee Bond #6027949  
Selco Ins. Co. of N. America.  
LC

SIGNATURE  X20 TITLE Operating Unit Manager DATE 03/01/2000  
TYPE OR PRINT NAME Allen Davis

API Number  
Assigned.

43-01530303

APPROVAL

THIRTEEN POINT SURFACE USE PLAN

Company: Texaco Exploration & Production, Inc. Well No.: SWD #3

Location: Emery County Utah ~~1670.8' FNL and 993.5' FEL~~, Section 11, T18S, R7E SLB & M  
1669 993

Lease No.: FEE

**B. THIRTEEN POINT SURFACE USE PLAN**

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

- a. Proposed route to location: From Castle Dale, Utah, proceed west approximately 2 miles to Coal Haul Road (state road 57). Take Coal Haul Road (state road 57) north approximately 5 miles. Turn right, off Coal Haul Road (state road 57) and enter Texaco 2-49 lease road and turn south onto existing gas & electric line ROW. Follow ROW, approximately 3050' to well location SWD #3 @ 1670.8' FNL and 993.5' FEL, Section 11, T18S, R7E. See attached map - attachment #1
- b. Location of proposed well in relation to town or other reference point: *Approximately 3.7 miles northwest of Orangeville, UT.*
- c. Contact the County Road Department for use of county roads. The use of Emery County roads will require an encroachment permit from the Emery County Road Department.: *Submitting ROW application to upgrade existing pipeline and electrical ROWs to include road ROW.*
- d. Plans for improvement and/or maintenance of existing roads: *N/A*
- e. Other: *N/A*

2. Planned Access Roads:

- a. Location (centerline): *From state road 57, enter Texaco 2-49 lease road and turn south onto existing gas & electric line ROW. Follow ROW, approximately 3050' to well location SWD #3 @ 1670.8' FNL and 993.5' FEL, Section 11, T18S, R7E -- attachment #1*
- b. Length of new access to be constructed: *Approximately 0'*
- c. Length of existing roads to be upgraded: *Upgrade two tract road - approximately 2800'*
- d. Maximum total disturbed width: *60'*
- e. Maximum travel surface width: *25'*
- f. Maximum grades: *10%*
- g. Turnouts: *None*

- h. Surface materials: *Native*
- i. Drainage (crowning, ditching, culverts, etc): *Roads will be crowned with bar ditches on both sides with approximately 1 culvert placed along existing road.*
- j. Cattle-guards: *No cattle- guards will be needed, Gates will be installed if required.*
- k. Length of new and/or existing roads which lie outside the lease boundary for which a State right-of-way is required: *1500' State Right-Of-Way/easement being submitted*
- l. Other:

Surface disturbance and vehicular travel will be limited to the approved location access road. Any additional area needed must be approved by the Area Manager in advance.

If a right-a-way is necessary, no surface disturbing activities shall take place on the subject right-of-way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any right-of-way facilities.

If a right-of-way is secured, boundary adjustments in the lease or unit shall automatically amend this right-of-way to include that portion of the facility no longer contained within the lease or unit. In the event of an automatic amendment to this right-of way grant, the prior onlease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendment.

The access road will be rehabilitated or brought to Resource (Class III) Road standards within 60 days of dismantling the rig depending on the wells success/failure. If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.

- 3. Location of Existing Wells - on a map, show the location of all water, injection, disposal, producing and drilling wells within a one mile radius of the proposed well, and describe the status of each: *See attached map - attachment #5.*
- 4. Location of Production Facilities:
  - a. On-site production facilities: *Saltwater Disposal Facility*
  - b. Off-site facilities: *None*
  - c. Pipelines: *existing water line will feed the Saltwater Disposal Facility*

All permanent (in place for six months or longer) structures constructed or installed will be painted a flat, non-reflective color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Colors will be as follows: tan

All site security guidelines identified in 43 CFR 3163.7-5 and Onshore Oil and Gas Order No. 3  
Colors will be as follows: tan



If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All oil production and measurement shall conform to the provisions of 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 4.

Production facilities on location may include a lined or unlined produced water pit

5. Location and Type of Water Supply:

All water needed for drilling purposes will be obtained from (describe location and/or show on A map): *All water needed for drilling will be obtained from a local municipal water source. Since this well will be primarily drilled with air, minimal water will be needed.*

6. Source of Construction Material:

Pad construction material will be obtained from (if the source is Federally owned, show location on a map): *Private Owner*

The use of materials under State jurisdiction will conform to 43 CFR 3610.2-3.

Any gravel used will be obtained from a state approved gravel pit.

7. Methods of Handling Waste Disposal:

Describe the methods and locations proposed for safe containment and disposal of waste material, e.g. cuttings, produced water, garbage, sewage, chemicals, etc.

The reserve pit will be located: *Inbound and in the southwest corner of the pad.*

The reserve pit will be constructed so as not to leak, break, or allow discharge

The reserve pit will be lined with native material unless designated otherwise by State officers prior to construction. Pit walls will be sloped no greater than 2 to 1.

The reserve pit shall be located in cut material, with at least 50% of the pit volume being below original ground level. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. As soon as the reserve pit has dried, all areas not needed for production will be rehabilitated.

Trash must be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations.

8. Ancillary Facilities: Garbage Containers and Portable Toilets

9. Well Site Layout - depict the pit, rig, cut and fill, topsoil, etc. on a plat with a scale of at least 1" = 50' - see attachment #3.

All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.6.

Access to the well pad will be from: West

The blooie line will be located: *At least 100 feet from the well head.*

To minimize the amount of fugitive dust and spray escaping from the blooie pit, the following blooie line deflection method will be employed: *Water Injection.*

10. Plans for Restoration of the Surface:

The top 6 inches of topsoil material will be removed from the location and stockpiled separately on: *Adjacent land.*

Topsoil along the access road will be reserved in place adjacent to the road.

Immediately upon completion of drilling, all equipment that is not necessary for the injection facility shall be removed.

The reserve pit and that portion of the location not needed for production will be reclaimed.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry.

Reclaimed roads will have the berms and cuts reduced and will be closed to vehicle use.

All disturbed areas will be recontoured to replicate the natural slope.

The stockpiled topsoil will be evenly distributed over the disturbed area.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled between Sept. and Nov., or at a time specified by the State. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

The following seed mixture will be used: *State-recommended mixture.*

The abandonment marker will be one of the following, as specified by State:

- 1) at least four feet above ground level,
- 2) at restored ground level, or
- 3) below ground level.

In any case the marker shall be inscribed with the following: operator name, lease number, Well name and surveyed description (township, range, section and either quarter-quarter or footage.).

11. Surface and Mineral Ownership: *Texaco Exploration and Production Inc .is currently in the process of purchasing - Surface BLM - Mineral Ownership* *\* Not drilling into fed. minerals. TD 7460' Nevejo Pz. LC*

12. Other Information:

- a. Archeological Concerns: *None that the operator is aware of.*

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the Authorized Officer (AO). Within five (5) working days, the AO will inform the operator as to:

1. whether the materials appear eligible for the National Register of Historic Places;
2. the mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary); and
3. a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

- b. Threatened and Endangered Species Concerns: *None that the operator is aware of.*
- c. Wildlife Seasonal Restrictions (yes/no): *See Environmental Impact Statement (EIS)*
- d. Off Location Geophysical Testing: *N/A*
- e. Drainage crossings that require additional State or Federal approval: *None*
- f. Other:

13. Lessee's or Operator's Representative and Certification

Representative: Texaco Exploration & Production, Inc.

Name: Allen R. Davis

Title: Team Leader / Farmington Operating Unit

Address: 3300 No. Butler Suite 100  
Farmington, New Mexico 87401

Phone No: 505-325-4397 ext 20

Certification:

**TEXACO**

FORM G-44

Date 3-17-2000

To LISA CARDONA

From RICHARD CAPP

- ☐ Please  
☐ Attend to  
☐ Note and return  
☐ Note and forward  
to files  
☐ See (phone) me  
re attached

- ☐ Prepare reply for my  
signature  
☐ Send me information  
required to answer  
☐ For your information  
☐ As per conversation  
☐ Telephone message

- ☐ As requested  
☐ For your comments  
and suggestions  
☐ Does attached meet  
with your approval?  
☐ For signature

Persons under my direct supervision, have inspected the proposed that I am familiar with the conditions which currently exists; that APD package are, to the best of my knowledge, true and correct; ed with the operations proposed herein will be performed by and subcontractors in conformity with this APD package and the er which it is approved. I also certify responsibility for the at portion of the leased lands associated with this application, rovided under Texaco's Nationwide bond coverage bond. This provisions of 18 U.S.C. 1001 for the filing of a false statement.



Davis

Date: 3/17/2000

duction Inc.

while reviewing the APD  
for TEXACO'S SWD #3  
IN EMERY COUNTY UTAH,  
I NOTICED THAT MR. AL  
DAVIS HAD FAILED TO  
SIGN THE LAST PAGE OF  
THE 13 PT. SURFACE USE  
PLAN. ATTACHED ARE ONE  
ORIGINAL & TWO PHOTO COPIES  
OF THAT PAGE.

THANKS  
Richard

**RECEIVED**

MAR 24 2000

DIVISION OF  
OIL, GAS AND MINING

**TABLE 1**  
**NOTIFICATIONS**

Notification Requirements:

Notify the Division of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program

Division contacts (please leave a voice mail message if person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Robert Krueger at (801) 538-5274 (plugging)
- Carol Daniels at (801) 538-5284 (spud)

Operator: Texaco Exploration and Production, Inc  
Lease and Well Name: SWD #3  
Location: SE/NE, Section 11, T18S, R7E, SLB&M  
Emery County, Utah

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## **9 POINT DRILLING PLAN**

All operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, the approved plan of operations and the conditions of approval. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. **Surface Formation and Estimated Formation Tops:**

<u>Formation</u>	<u>Depth</u>
Bluegate Shale	100'
Top of "A" Coal	3590'
Navajo	6850'
Total Depth	7400'

2. **Estimated Depths at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered:**

Expected Oil Zones:	None
Expected Gas Zones:	Ferron coals at 3590' to 3720'
Expected Water Zones:	Ferron coals at 3590' to 3720'
Expected Water Zones:	Navajo 6850'
Expected Mineral Zones:	None

All Fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and will be cased and cemented. When possible, water flow rates will be measured and samples will be taken and analyzed with the results being submitted to the State. All oil and gas shows will be tested to determine commercial potential.

3. **Pressure Control Equipment:**

The proposed pressure control equipment consists of the following:

- a. Rotating head
  - b. 3000 psi WP hydraulic-operated double ram
- (See attached schematic drawings of the BOP and choke manifold)

BOP systems shall be consistent with API RP53 and Onshore Oil and Gas Order No. 2. Pressure tests for the surface casing and all BOP equipment potentially subject to pressure will be conducted before drilling the surface casing shoe. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned. BOP equipment will be inspected and operated daily to ensure good mechanical working order. The ram preventers shall be inspected and operated each trip (no more than once a day is require).

Pressure tests will be performed on all related well control equipment. Ram type preventers and associated equipment shall be tested using a test plug to full working pressure. The test pressure shall be maintained for at least 10 minutes with no bleed off. The valve on the casing head below the test plug shall be open during the BOP test.

As a minimum, the above pressure test shall be performed when:

- a. The stack is initially installed (prior to drilling out of the surface casing),
- b. Any seal subject to pressure is broken,
- c. Following repairs to any part of the BOP system, and
- d. At 30 day intervals.

All valves shall be tested from the working pressure side with all downstream valves open.

A BOP pit level drill shall be conducted weekly for each drilling crew.

All of the above described tests and drills shall be recorded in the drilling log. Test charts, with individual test results identified, shall be maintained on location while drilling and shall be available upon request.

Drill string safety valves to fit all tools in the drill string shall be maintained on the rig floor while drilling operations are in progress.

4. **Casing Program and Auxiliary Equipment:**

- a. The following surface casing will be set at 290' in a 17-1/2" hole: 13-3/8" 48 lbs/ft H-40 LT&C
- b. The following intermediate casing will be set at 3100' in a 12-1/4" hole; 9-5/8" 36 lbs/ft J-55 LT&C
- c. The following production casing will be set at 7400' (TD) through the Navajo formation in a 8-3/4" hole: 7" 23 lbs/ft N-80 LT&C

5. **Cement Program:**

Surface:                      Type and Amount  
0' to 300'                      345 sacks Class G cement + 2% CaCl<sub>2</sub> + 0.25 pps  
(TOC at surface)                      cellophane flakes  
Yield: 1.16 cf/sack    Weight: 15.8 ppg  
(The above volume assumes 100% excess over gauge hole)

Intermediate:                      Type and Amount  
0' to 3100'                      200 sacks 10:1 RFC Class G cement + 0.25  
(TOC at surface')                      pps cellophane flakes  
300 \* Yield: 1.62 cf/sack    Weight: 14.2 ppg

Production:                      Type and Amount  
0' to 7400'                      225 sacks 10:1 RFC Class G cement + 0.25  
(TOC at 4100')                      pps cellophane flakes  
1075 \* Yield: 1.62 cf/sack    Weight: 14.2 ppg

(The above volume assumes 50% excess over gauge hole)

\* Quantities to  
Match Core  
Shot per  
Richard Carr  
w/ TEP 5-1-00  
25th

6. **Mud Program:**

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Weight</u>	<u>Viscosity</u>
0' - 300'	Air	N/A	N/A
300' - TD	Air	N/A	N/A

The Blooie line will be approximately 100' in length and will extend in a straight line from below the rotating head as shown in the attached Rig Layout schematic. An automatic spark-type igniter will be affixed to the end of the blooie line and set to provide a continuous spark to ignite and burn any produced hydrocarbon gas. Dedusting will be accomplished with a small pump, water line and spray nipple affixed near the end of the blooie line to provide a continuous spray of water. It is not planned to have any standby fluid on location, however if it is necessary to fill the hole with fluid, produced Ferron coal water will be trucked in as necessary from a nearby evaporation pit.

In the event the hole gets wet, either mist or produced Ferron coal water treated with bactericide will be used as a circulating medium. Due to the potential for contamination of usable quality water aquifers, material containing chromates will not be used in the circulating medium.

7. **Coring Logging and Testing Program:**

a. No drill stem test is planned.



- b. No coring is planned
- c. The logging program will consist of a GR-CNL-LDT log from 2000' to TD, an AITH (array induction) log from base of the surface casing to TD, and an HRCL (high-resolution coal log) from 3000' to TD.

8. **Abnormal Conditions, Bottom Hole Pressures and Potential Hazards:**

- a. The maximum anticipated bottom hole pressure gradient in any of the zones to be penetrated is 8.33 ppg (fresh water gradient).
- b. Lost circulation is a potential hazard in the Ferron coal section in the event the hole gets wet and water must be used as the circulating medium.
- c. No abnormal temperatures are anticipated.
- d. No H<sub>2</sub>S gas is anticipated.

9. **Lessee's Operator's Representatives:**

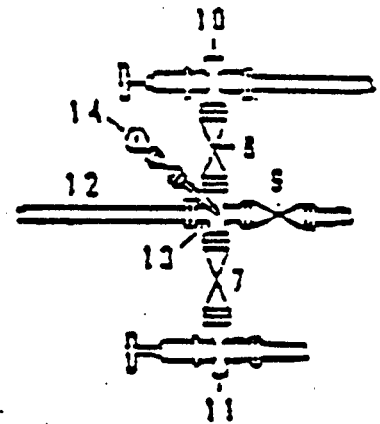
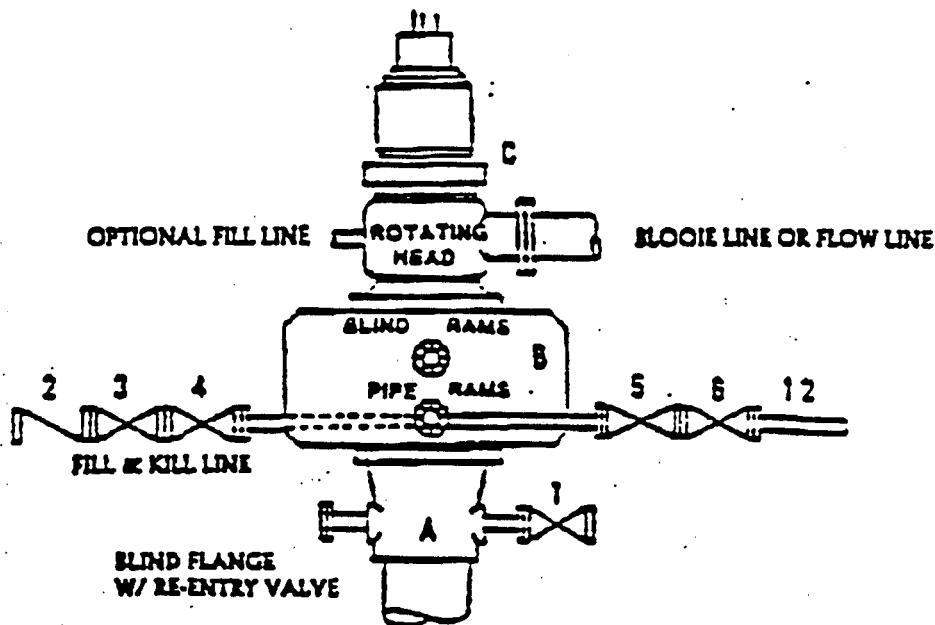
Permit Matters

Texaco Exploration and Production, Inc.  
Ron Wirth  
Production Supervisor  
P.O. Box 618  
Orangeville, Utah 84537  
(435) 748-5395 ext 1

Drilling and Completion Matters

Texaco Exploration and Production, Inc.  
Mike Videtich  
Drilling Engineer  
4601 DTC Boulevard  
Denver, Colorado 80237  
(303) 793-4850  
(303) 793-4000 (switchboard)  
(303) 771-0866 (home)

TYPICAL 2000 p.s.i.  
BLOWOUT PREVENTER SCHEMATIC  
FOR AIR DRILLING



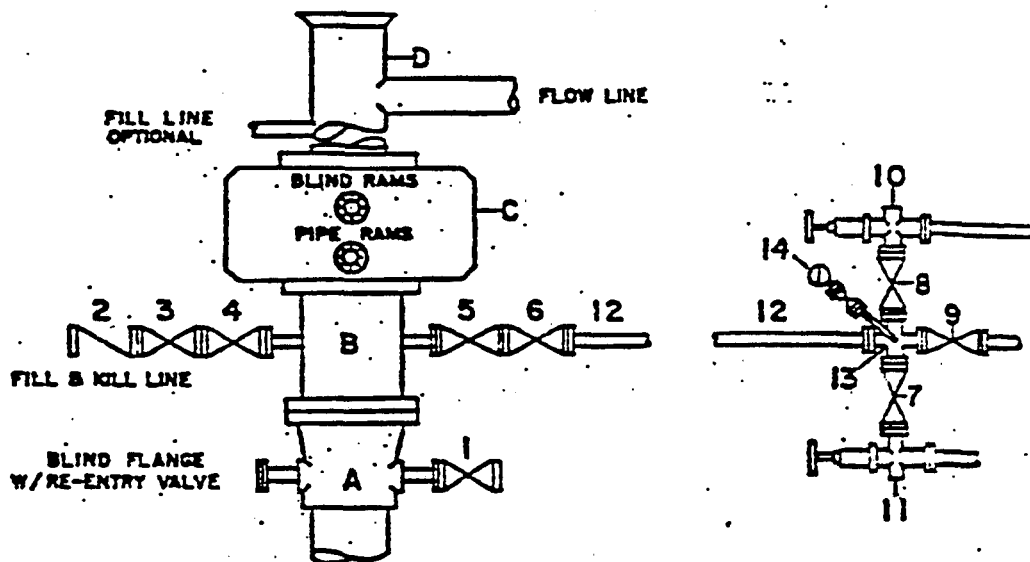
DRILLING CONTROL

MATERIAL LIST\*

- A Texaco Wellhead.
- B 2000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 2000# W.P. control lines (where sub-structure height is adequate, 2 - 2000# W.P. single ram type preventers may be utilized).
- C Rotating head with extended Blochie Line (optional fill up outlet).
- 1, 3, 4 2" minimum 2000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 2 2" minimum 2000# W.P. back pressure valve.
- 5, 6, 9 2" minimum 2000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 12 2" minimum schedule 80, Grade "B", seamless line pipe.
- 13 2" minimum x 2" minimum 2000# W.P. flanged cross.
- 10, 11 2" minimum 2000# W.P. adjustable choke bodies.
- 14 Cameron Mud Gauge or equivalent (location optional in choke line).
- 15 2" minimum 2000# W.P. flanged or threaded full opening steel gate valve, or Halliburton Lo Torc Plug valve.

\*(OR EQUIVALENT)

# DRILLING CONTROL CONDITION II-3000 PSI WP



## DRILLING CONTROL

### MATERIAL LIST - CONDITION II

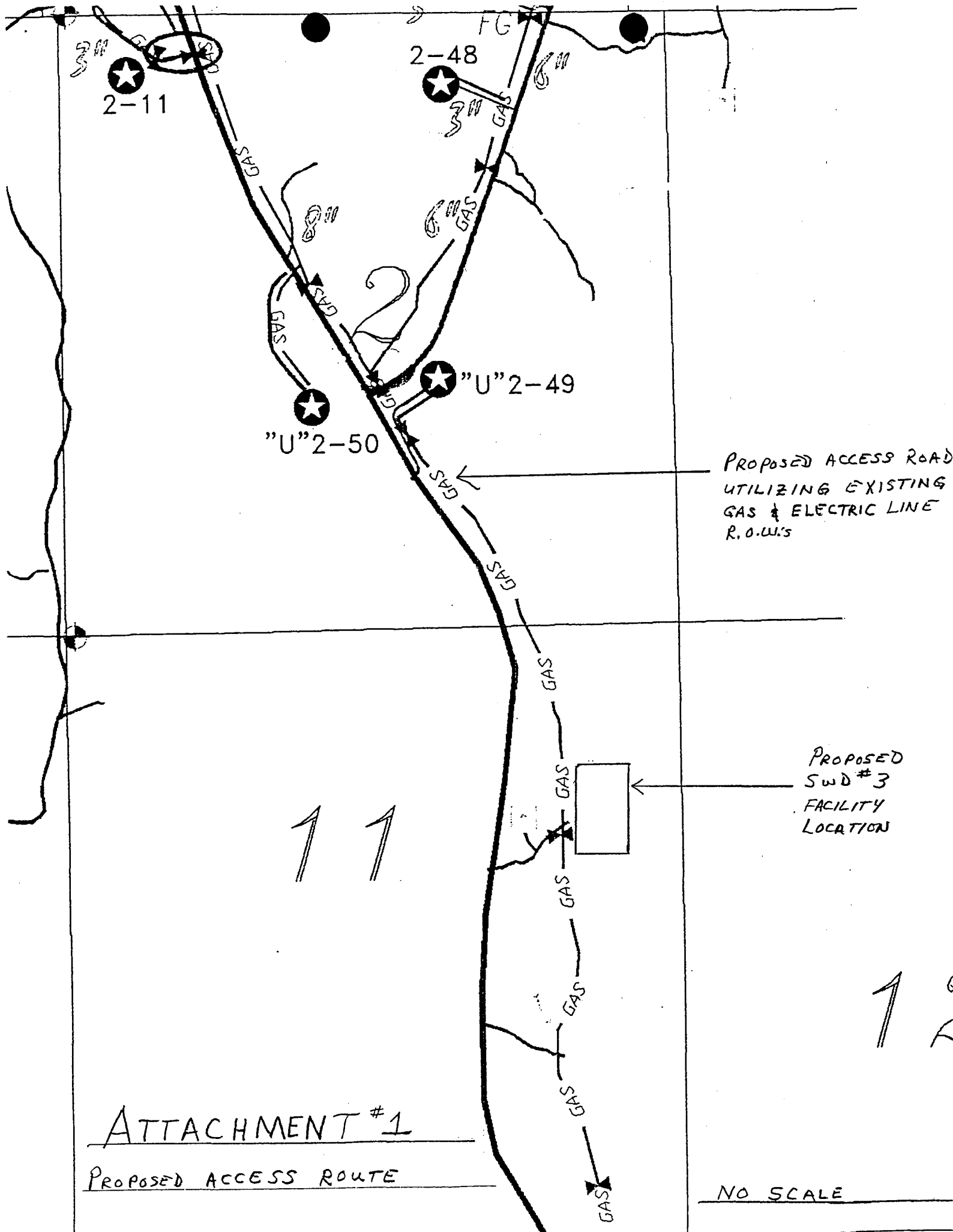
- A Texaco Wellhead
- B 3000# W.P. drilling spool with a 2" minimum flanged outlet for kill-line and 3" minimum flanged outlet for choke line
- C 3000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 3000# W.P. control lines (where sub-structure height is adequate, 2-3000# W.P. single ram type preventers may be utilized.)
- D Bell nipple with flowline and fill-up outlets. (Kill line may also be used for fill-up line.)
- 1,3,4, 7,8 2" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 2 2" minimum 3000# W.P. back pressure valve
- 5,6,9 3" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 12 3" minimum schedule 80, Grade "B", seamless line pipe
- 13 2" minimum x 3" minimum 3000# W.P. flanged cross
- 10, 11 2" minimum 3000# W.P. adjustable choke bodies
- 14 Cameron Mud Gauge or equivalent (location optional in choke line.)



TEXACO, INC.

DRILLING DIVISION





ATTACHMENT #1

PROPOSED ACCESS ROUTE

NO SCALE



Elevation at Ungraded Ground = 6254.1'.  
Elevation at Graded Ground = 6253.6'.

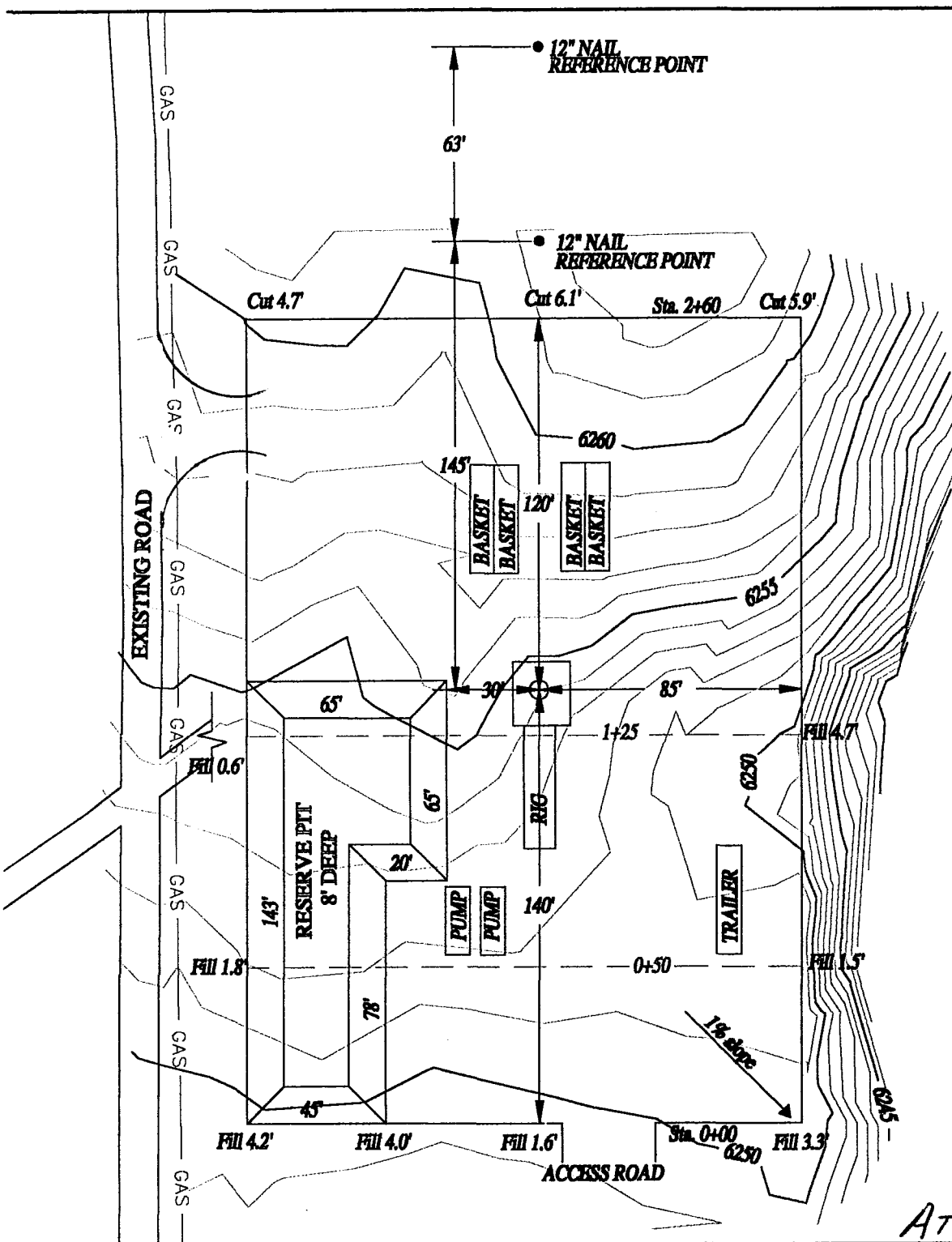


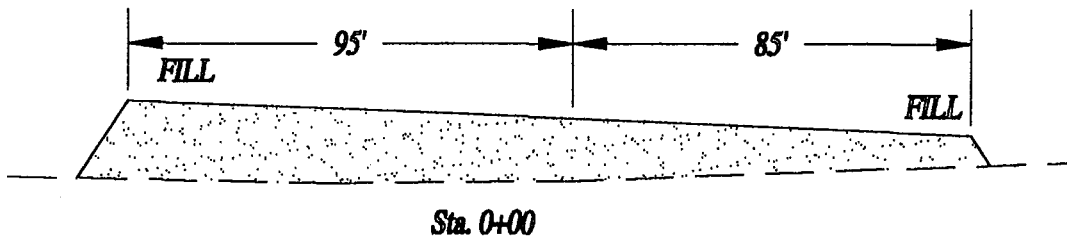
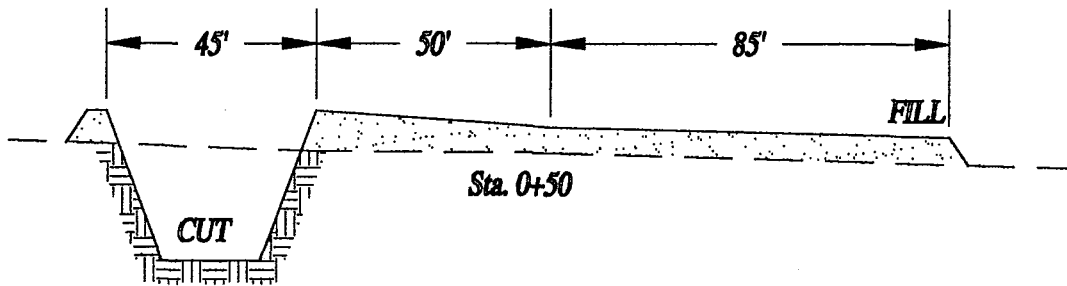
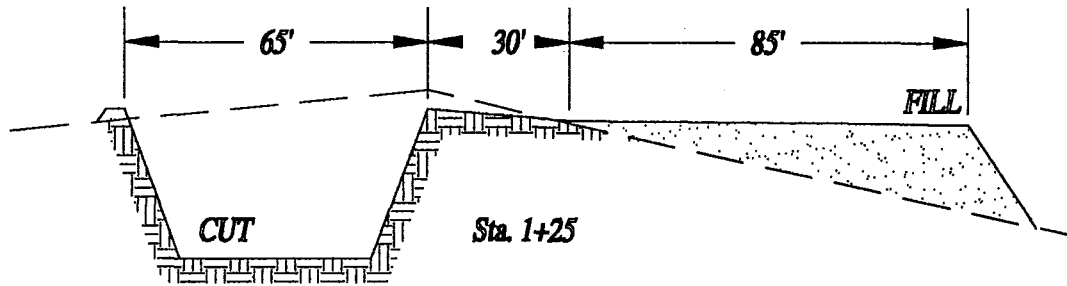
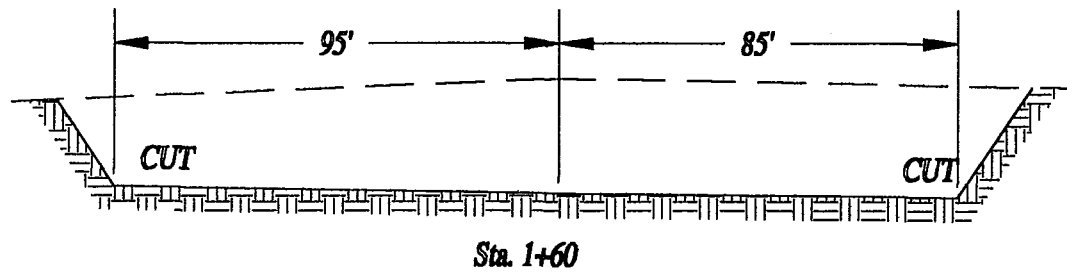
**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 126  
Price, Utah 84501  
Ph: 435-637-5032 ext. 711  
Fax: 435-748-5085

**TEXACO EXPLOR. & PROD., INC.**  
**LOCATION LAYOUT**  
Section 11, T18S, R7E, S.L.B.&M.  
S.W.D. #3

Drawn By: J. TIMOTHY	Checked By: L.W.J.
Drawing No. A-2	Date: 12/10/99
	Scale: 1" = 50'
Sheet 2 of 4	Job No. 015

ATTACHMENT #3





Slope = 1 1/2 : 1  
(Except Pit)  
Pit Slope = 1 : 1

1" = 10'  
X - Section  
Scale  
1" = 40'



Talon Resources, Inc.  
375 South Carbon Avenue, Suite 126  
Price, Utah 84501  
Ph: 435-637-5032 ext. 711  
Fax: 435-748-5085

TEXACO EXPLOR. & PROD., INC.  
LOCATION LAYOUT  
Section 11, T18S, R7E, S.L.B.&M.  
S.W.D. #3

# APPROXIMATE YARDAGES

CUT  
(6" ) Topsoil Stripping = 867 Cu. Yds.  
Remaining Location = 3,939.92 Cu. Yds.  
TOTAL CUT = 4,806.92 Cu. Yds.  
TOTAL FILL = 1,840.38 Cu. Yds.

Attachment #4

Drawn By: J. TIMOTHY	Checked By: L.W.J.
Drawing No. A-2	Date: 12/10/99
	Scale: 1" = 50'
Sheet 2 of 4	Job No. 015



WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/07/2000

API NO. ASSIGNED: 43-015-30303

WELL NAME: SWD 3

OPERATOR: TEXACO E & P INC ( N5700 )

CONTACT: ALLEN DAVIS

PHONE NUMBER: 504-325-4397

PROPOSED LOCATION:

SENE 11 180S 070E

SURFACE: 1669 FNL 0993 FEL

BOTTOM: 1669 FNL 0993 FEL

EMERY

UNDESIGNATED ( 2 )

LEASE TYPE: 4- Fee

LEASE NUMBER: Fee

SURFACE OWNER: 4- Fee

PROPOSED FORMATION: NAVA

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	ROK	3-1-00
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[] Ind[] Sta[] Fee[4]  
(No. 6027949 )  
☒ Potash (Y/N)  
☒ Oil Shale (Y/N) \*190 - 5 (B)  
☒ Water Permit  
(No. MUNICIPAL )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)

LOCATION AND SITING:

\_\_\_ R649-2-3. Unit \_\_\_  
\_\_\_ R649-3-2. General \_\_\_  
☒ Siting: \_\_\_  
\_\_\_ R649-3-3. Exception \_\_\_  
\_\_\_ Drilling Unit \_\_\_  
Board Cause No: \_\_\_  
Eff Date: \_\_\_  
Siting: \_\_\_  
\_\_\_ R649-3-11. Directional Drill \_\_\_

COMMENTS:

Need Presite. (Conducted 4-14-00)  
Need add'l info. "Ex. Loc" (Rec'd 4-28-00)

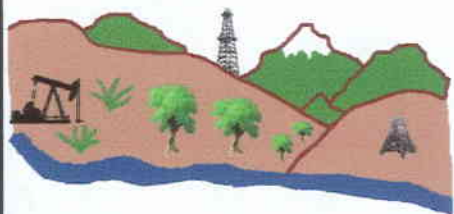
STIPULATIONS: ① STATEMENT OF BASIS

② SURFACE AND INTERMEDIATE CASING, SHALL  
BE CEMENTED TO SURFACE,

③ WATER SAMPLES SHALL BE OBTAINED FROM THE PROPOSED  
INJECTION ZONE UPON COMPLETION OF THE WELL.

④ THE PROPOSED INJECTION ZONE SHALL BE TESTED UPON  
COMPLETION OF THE WELL TO DETERMINE THE CURRENT  
FORMATION PRESSURE,





Utah Oil Gas and Mining

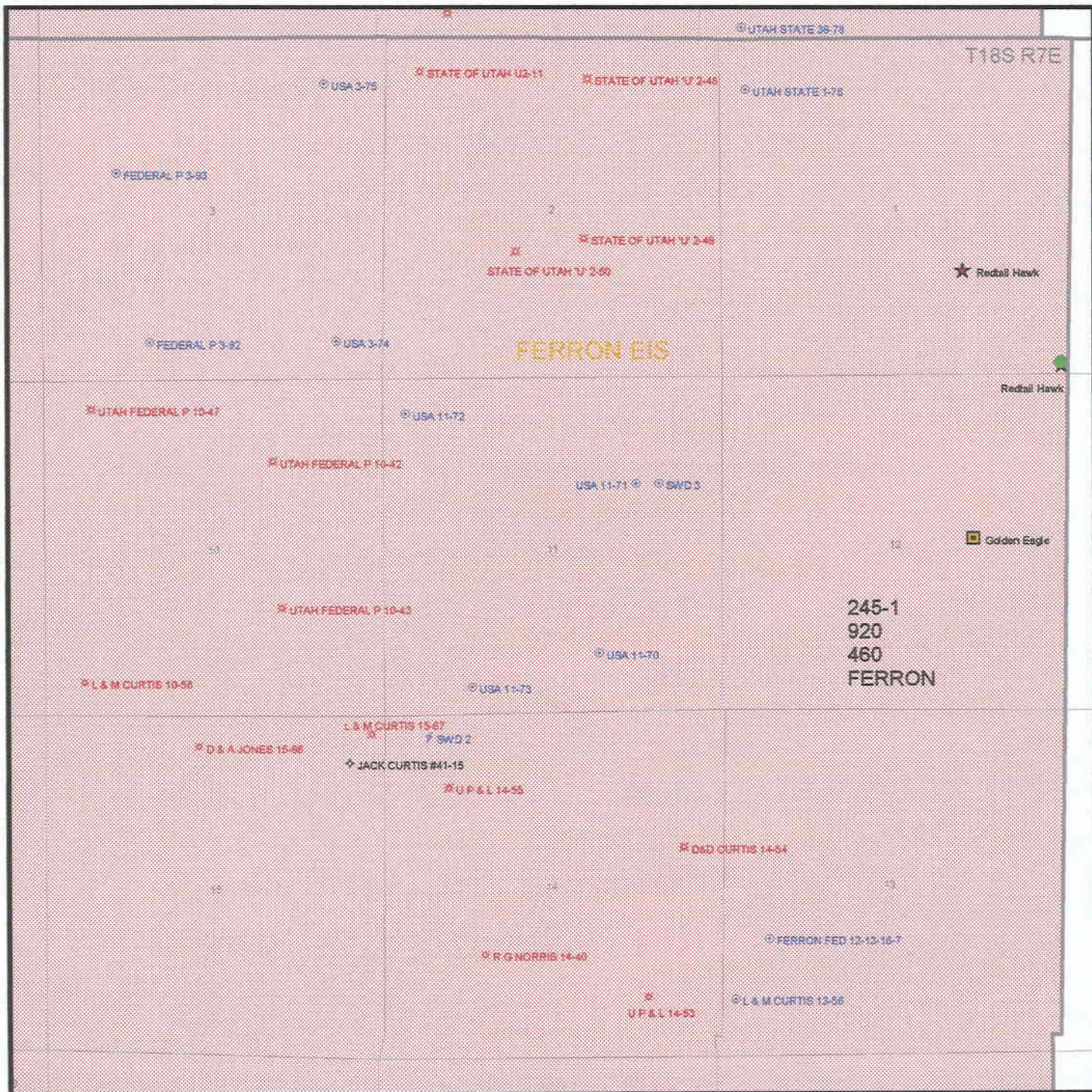
Serving the Industry, Protecting the Environment

OPERATOR: TEXACO E & P INC. (N5700)

FIELD: UNDESIGNATED (002)

SEC. 11, T 18 S, R 7 E,

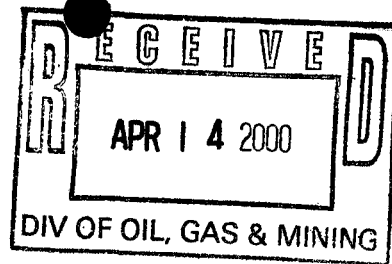
COUNTY: EMERY CAUSE : ~~245-1-160~~ ACRES



PREPARED  
DATE: 3-APR-2000



AFFIDAVIT



STATE OF COLORADO       }  
COUNTY OF DENVER       }

Chuck Snure, of lawful age, being first duly sworn, on oath deposes and says that he is familiar with the SWD # 3 Well proposed to be drilled by Texaco Exploration and Production Inc. in the SE/4 NE/4 of Section 11, Township 18 South, Range 7 East, Emery County, Utah and that he is also familiar with the surface ownership of that certain ten (10) acre tract of land located within the SE/4 NE/4 of Section 11, Township 18 South, Range 7 East, Emery County, Utah, said tract of land more particularly described on the property description plat attached hereto and made a part hereof.

Affiant further states that the owners of said ten (10) acre tract of land, Joe O. and Carolyn P. Luke (owners) have personally been contacted and have verbally committed to enter into an agreement whereby Texaco Exploration and Production Inc. will purchase said ten (10) acre tract of land for the purpose of drilling the aforementioned well and that said owners have additionally agreed to enter into an Easement and Surface Use Agreement granting Texaco Exploration and Production Inc. full use of all road, pipeline and electrical line access to said well and that considerations for said access and location for said well have been agreed upon by owners and Texaco Exploration and Production Inc.

Further affiant saith not.

*Chuck Snure*

Chuck Snure  
CBM Asset Team Landman

Subscribed and sworn to before me this 11<sup>th</sup> day of April, 2000.

*MaryAnne M. Frawley*  
Notary Public

STATE OF COLORADO       }  
COUNTY OF DENVER       }

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of April, 2000, by Chuck Snure.

WITNESS my hand and official seal

*MaryAnne M. Frawley*  
Notary Public

My Commission Expires:  
May 21, 2002

My Commission Expires: \_\_\_\_\_

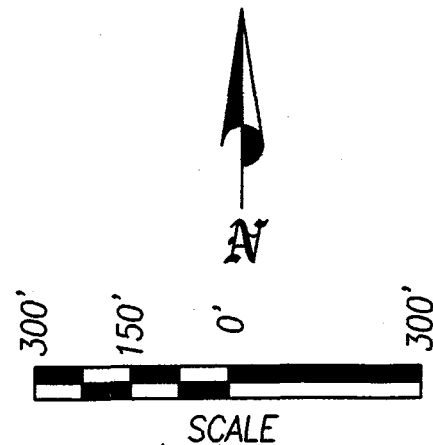
MaryAnne M. Frawley  
5709 South Nepal Way  
Aurora, CO 80015-3339

[N 53'49" E - 2657.38']

(S 89'51' W - 2657.16')

North Quarter  
CornerNortheast Section  
Corner

THE FOLLOWING DESCRIBED PARCEL  
IS LOCATED IN EMERY COUNTY  
STATE OF UTAH  
SECTION 11, T18S, R7E, S.L.B.&M.



SCALE

TOWNSHIP 18 SOUTH

RANGE 7 EAST

U.S.A.

11

Utah State Road 57

CO-TRUSTEES  
JOE O. & CAROLYN P. LUKE  
4-31-1-  
120 AC.

PARCEL 1

DONALD & DELORES CURTIS  
4-13-2-  
40 AC.

Vicinity Map (NTS)

PARCEL 1

U.S.A.

State Road ROW

Utah State Road 57

State Road ROW

Property Line

S89°31'25"E  
469.73'N00°28'35"E  
927.34'

EXISTING ROAD

EXISTING ROAD

N89°31'25"W  
469.73'S00°28'35"W  
927.34'POB  
N - 282.14'  
W - 870.36'

Private  
Joe O. & Carolyn P. Luke

East Quarter  
Corner

(S 00°10' W - 2663.10')

[S 00°12'07" W - 2663.91']

## PROPERTY DESCRIPTION

## ORIGINAL PROPERTY

E/2 NE/4; NE/4 SE/4, SECTION 11,  
T18S, R7E, S.L.B.& M.

## PARCEL 1

BEGINNING AT A POINT 282.14' NORTH AND 870.36'  
WEST OF THE EAST QUARTER CORNER OF SECTION  
11, T18S, R7E, S.L.B.& M., THENCE N89°31'25"W  
469.73', THENCE N00°28'35"E 927.34', THENCE  
S89°31'25"E 469.73', THENCE S00°28'35"W  
927.34' TO THE POINT OF BEGINNING.

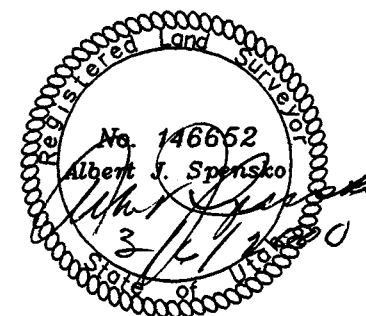
10 acres

## LEGEND

—————	SECTION LINE
- - - - -	1/4 SECTION LINE
- - - - -	1/16th LINE
(N00°00'00"W)	GLO
[N00°00'00"W]	GPS - SURVEY
POB	POINT OF BEGINNING
POSL	POINT ON SECTION LINE
⊕	SECTION CORNER FOUND

## Surveyor's Certificate:

I, Albert J. Spensko, a Registered Professional  
Land Surveyor, holding Certificate 146652  
State of Utah, do hereby certify that the  
information on this drawing is a true and  
accurate survey based on data of record and  
was conducted under my personal direction  
and supervision as shown hereon.

LANDOWNERS  
APPROVAL AND ACCEPTANCE

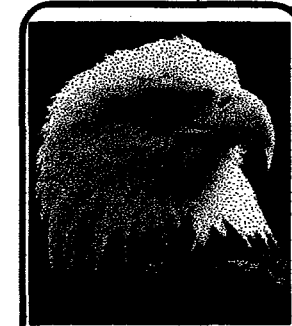
Approved by Joe O. and Carolyn P. Luke this \_\_\_\_\_  
day of \_\_\_\_\_ A.D. \_\_\_\_\_, at which  
time this minor Subdivision was approved and accepted.

Land Owners

Prepared For:  
TEXACO EXPLORATION & PRODUCTION, Inc.  
4601 DTC Blvd. Denver, Colorado 80237-2549  
10 ac Property Plat and Description  
Prepared By:  
Talon Resources, Inc.

## REVISIONS

DATE:	BY:



Talon Resources

Technical  
Group

375 South Carbon Ave.  
Price, Utah 84501  
Phone (435)637-5032 ex711  
FAX (435)637-7336



TEXACO

E&amp;P

PROPERTY DESCRIPTION



DRAWN BY:  
J. Timothy  
CHECKED BY:  
LWJ, AJS

DATE:  
February 25, 2000

SCALE:  
1"=300'

JOB NO.  
096

DRAWING NO.

**DIVISION OF OIL, GAS AND MINING**  
**APPLICATION FOR PERMIT TO DRILL**  
**STATEMENT OF BASIS**

**Operator Name:** Texaco Exploration and Production, Inc.

**Name & Number:** SWD #3

**API Number:** 43 - 015 - 30303

**Location:** 1/4, 1/4 SE NE Sec. 11 T. 18 S R. 7 E County: Emery

**Geology/Ground Water:**

The well will be spud in the slope wash sands and gravels of the pediment mantle water may be encountered in the first 200 feet of drilling. Surface casing will be set at 300 feet and cemented to surface. This will adequately protect the shallow aquifers. A 9 5/8" intermediate casing will be set at 2500 feet and cemented to surface to isolate any water encountered in the Ferron Sands. A 7 " production casing will be set at a total depth of 7295 feet. It is proposed to circulate cement to 5500 feet. Considering that the estimated top of the Entrada is at 4690 feet and may contain fresh water, It is recommended that cement be either circulated or 2 staged above the top of the Nuggett.

**Reviewer:** K. Michael Hebertson **Date:** 14-April-2000

**Surface:**

A possible ground water resource and moderately permeable soil militates the need for the protection of a lined pit. Precipitation will be deflected around the location with berms and culverts. There are no nearby culinary or irrigation water supply wells. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. No 404 dredge and fill permit is needed for operations directly associated with this location. A flashflood hazard is possible in the area of the location.

**Reviewer:** K. Michael Hebertson **Date:** 14-April-2000

**Conditions of Approval/Application for Permit to Drill:**

1. Recommend culverts sufficient to manage expected runoff, standing and surface water in crossed drainages
2. Berm pit.
3. Site infrastructure as per drilling location plat.
4. Minimum 12 mil synthetic lined pit.
5. Soil storage as per drilling location plat.
6. Disposal of wastes, rubbish, drilling fluid, and produced fluids will be accomplished using approved facilities.
7. Ad hoc construction materials will be acquired from approved sources.

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

OPERATOR: Texaco Exploration and Production, Inc.  
WELL NAME & NUMBER: SWD #3  
API NUMBER: 43-015-30303  
LEASE: FEE FIELD/UNIT: Undesignated  
LOCATION: 1/4, 1/4 SE NE Sec: 11 TWP: 18S RNG: 7E 1669 FNL 993 FEL  
LEGAL WELL SITING: 460 F SEC. LINE; F 1/4, 1/4 LINE; 920 F ANOTHER WELL.  
GPS COORD (UTM): x = 491,524 ; y = 4,346,917  
SURFACE OWNER: FEE

**PARTICIPANTS**

Mike Hebertson, C. Kierst (DOGM), Ron Wirth, Greg Tripp (Texaco); Val Payne (Emery County), Don Hamilton (Talon Resources)

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

Western margin of Colorado Plateau / ~2.0 miles south southeast of lower bench foothills (300' cliffs) below the East Mountain upper bench (west northwestward dipping strata of the Wasatch Plateau. Location is ~100' southwest of a 40' deep unnamed wash, 250' northeast of a 200' high bluff and ~400' southwest of Highway 57. Masuk Member of the Cretaceous Mancos Shale. Masuk Member sediments are light, bluish or dark gray, medium to thin bedded with sparse, interlayered, thin brown sandstone beds or discontinuous ledges of silicified shale.

**SURFACE USE PLAN**

CURRENT SURFACE USE: Grazing and wildlife habitat

PROPOSED SURFACE DISTURBANCE: 260' X 175' pad with 65' X 143' X 8' (including berm) inboard, pit and ~0.1 mile of new approach road. Topsoil is stockpiled outboard of the pad, along the north side of the pad. Reserve pit backfills and excess cut spoils are stockpiled outboard of the pad on the west side of the pad. Cut and fill slopes will expand the disturbed area beyond the dimensions of the pad.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: Two active gas wells and 3 active federal permits are within the radius of this well. There are also 6 points of diversion or water rights within the mile radius. None are for culinary use and all are located in Grimes Wash

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: No production facilities on pad. Buried gathering system will follow access road.

SOURCE OF CONSTRUCTION MATERIAL: Material from onsite or approach road disturbed areas will be used where possible. Any ancillary gravel will be brought from an approved gravel pit.

ANCILLARY FACILITIES: None.

**WASTE MANAGEMENT PLAN:**

Portable chemical toilets and interim holding tanks will be used until a code-compliant final disposition at an approved disposal site can be made; trash cage on location will be emptied into an approved landfill after cessation of drilling operations. Reserve pit will be dried after use, perforated and then buried. If the volume of fluid is too great to easily dry in the pit it will be disposed of at an approved disposal site. Water produced during testing and completion

will be stored in a storage tank or the reserve pit.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Stock watering rights owned by SITLA (93-722) and George and Iris Luke (93-1208), William Lyman Curtis (93-1209), Donald R Curtis (93-910) exist along Grimes Wash, within a mile of the pad. Grimes Wash is ~200' east. It is a tributary of Cottonwood Creek which flows through Orangeville and Castle Dale, ~3-6 miles southeast, and eventually into the San Rafael River.

FLORA/FAUNA: Pinyon, juniper, dwarfed sagebrush, buckwheat, mountain mahogany, yucca, mormon tea, cactus / birds, coyotes, rodents, elk, deer, reptiles.

SOIL TYPE AND CHARACTERISTICS: Sandy, silty, moderately permeable soil developed on the Masuk Member of the Cretaceous Mancos Shale. (GM)

SURFACE FORMATION & CHARACTERISTICS: Masuk Member of the Cretaceous Mancos Shale. Masuk Member sediments are light, bluish or dark gray, medium to thin bedded with sparse, interlayered, thin brown sandstone beds or discontinuous ledges of silicified shale.

EROSION/SEDIMENTATION/STABILITY: Stable ground with no undermining, flowage or upheaval evident locally. Erosion is limited to minor dry washes during cloudbursts, high winds and periods of rapid snowmelt with sedimentation occurring during the wane of these episodes. Pad will be ~250' from flash flood prone wash. A small gully on the east side of the pad will be filled and rip wrapped in order to control possible erosion at that point.

PALEONTOLOGICAL POTENTIAL: Poor

RESERVE PIT

CHARACTERISTICS: 143' X 65' X 8' inboard, rectangular, excavated pit.

LINER REQUIREMENTS (Site Ranking Form attached): Minimum 12 mil synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

Site will be restored in accordance with the Surface Owners stipulations.

SURFACE AGREEMENT: Texaco owns the surface and 80 acres around this well.

CULTURAL RESOURCES/ARCHAEOLOGY: Not required.

OTHER OBSERVATIONS/COMMENTS

Golden eagle nests are ~1 mile away. Critical deer and elk winter range. Phone line utility along Highway 57 and overhead high tension line ~1000' to northeast. Flash flood hazard exists in unnamed wash beside location. UP&L will construct overhead power lines to pad. Texaco's purchase of the ground from the private surface owner was discussed and an affidavit of the transaction was provided.

ATTACHMENTS:

4 Photos. The site was photographed 14/April/2000.

K. Michael Hebertson  
DOGM REPRESENTATIVE

14/April/2000 / 3:05 PM  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>10</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	15	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	15	
TDS >10000 or Oil Base	20	
Mud Fluid containing high levels of hazardous constituents		<u>0</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility		
Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>
<b>Final Score (Level II Sensitivity)</b>		<u>25</u>





Texaco Expl. & Prod. Inc., SWD #3, Sec. 11, T18S, R7E, Emery County API 43-015-30303





J. M. Huber Corp., Huber-Shimmin 1-12, Sec. 12, T12S, R10E, Carbon County API 43-007-30674





J. M. Huber Corp., Huber-Shimmin 1-11, Sec. 11, T12S, R10E, Carbon County API 43-007-30673





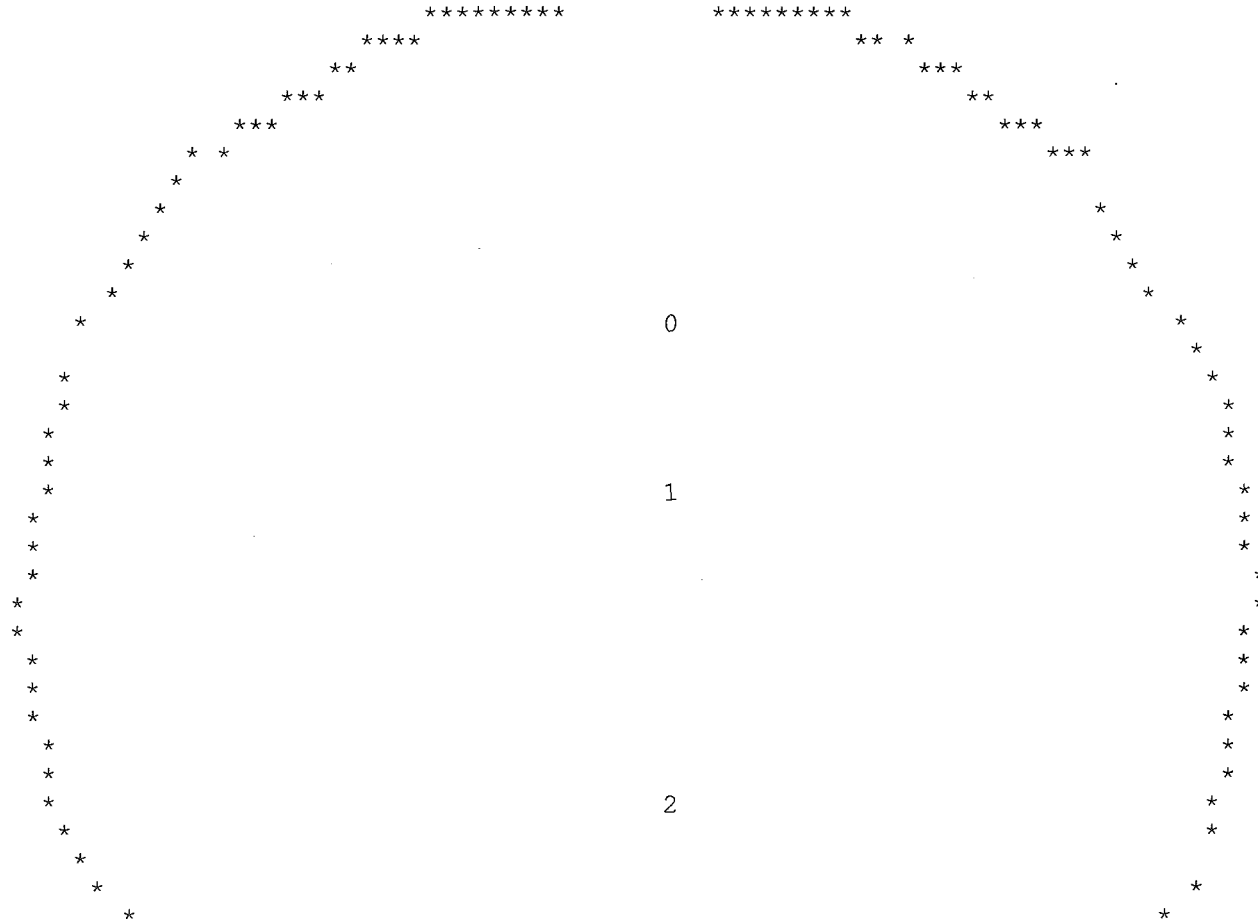
J. M. Huber Corp., Huber-Jensen 2-10, Sec. 10, T12S, R10E, Carbon County API 43-007-30675

UTAH DIVISION OF WATER RIGHTS  
WATER RIGHT POINT OF DIVERSION PLOT CREATED WED, APR 12, 2000, 2:52 PM  
PLOT SHOWS LOCATION OF 6 POINTS OF DIVERSION

PLOT OF AN AREA WITH A RADIUS OF 5280 FEET FROM A POINT  
S 1669 FEET, W 993 FEET OF THE NE CORNER,  
SECTION 11 TOWNSHIP 18S RANGE 7E SL BASE AND MERIDIAN

PLOT SCALE IS APPROXIMATELY 1 INCH = 2000 FEET

N O R T H  
\*\*\*\*\*





Curtis, William Lyman

Orangeville

UT 84

---



**Texaco Exploration  
and Production Inc.**  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

April 24, 2000

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
Ms. Lisha Cordova  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: State of Utah Application to Drill  
Texaco's SWD #3  
Spacing Exception Letter**

Dear Lisha:

Per our phone conversation of April 24, 2000 we respectfully request a spacing exception for the above referenced drilling well. The spacing exception is due to the topography of the area surrounding the drilling location. Also there are no other owners within 460' of this drilling location.

Thank you for your time, consideration and help in this matter. Please accept this letter as Texaco Exploration and Production Incorporated's written request for confidential treatment of all information contained in and pertaining to these permit applications, if said information is eligible for such consideration.

Sincerely,

Allen Davis  
Farmington Operating Unit Team Leader  
Texaco E. & P. Inc.

RNC/rnc

**RECEIVED**

APR 28 2000

DIVISION OF  
OIL, GAS AND MINING



Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

April 14, 2000

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
Ms. Lisha Cordova  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: **State of Utah Application to Drill  
Texaco's SWD #3**

Dear Lisha:

I have recently received information from our Denver drilling group that the geologic prognosis now indicates a Total Depth (TD) of 7765' and that the intermediate string will be set at 3000' instead of 3100' for the above referenced well. I have attached a new State of Utah Form 3 (in triplicate) reflecting these changes.

I have taken a new assignment here in Farmington and will be phasing out of the engineering department. They have not named a replacement for my old position as of yet but in the mean time you can contact either Mr. Allen Davis or Ian Kephart at the number above if there are any questions. It has been enjoyable working with you and I would like to thank you for ALL of your help and patience.

Please accept this letter as Texaco Exploration and Production Incorporated's written request for confidential treatment of all information contained in and pertaining to these permit applications, if said information is eligible for such consideration.

Sincerely,

Richard Carr  
Texaco E. & P. Inc.  
Farmington Operating Unit

**RECEIVED**

MAY 01 2000

**DIVISION OF  
OIL, GAS AND MINING**

RNC/rnc



**STATE OF UTAH**  
**DIVISION OF OIL, GAS AND MINING**

<b>APPLICATION FOR PERMIT TO DRILL OR DEEPEN</b>		5. Lease Designation and Serial No. <div style="text-align: center;">FEE</div>	
1a. Type of Work <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> 1b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SALT WATER DISPOSAL <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. If Indian, Alottee or Tribe Name  7. If Unit or CA, Agreement Designation  8. Well Name and Number <div style="text-align: center;">FEE</div>	
2. Name of Operator <div style="text-align: center;">TEXACO EXPLORATION &amp; PRODUCTION, INC.</div>		SWD #3 9. API Well No.	
3. Address and Telephone No. <div style="text-align: center;">3300 N. Butler Ave, Ste100     Farmington   NM   87401   325-4397</div>		10. Field and Pool, Exploratory Area <div style="text-align: center;">WILDCAT</div>	
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At Surface Unit Letter   H :   1669'   Feet From The   North   Line and 993'   Feet From The   East   Line At proposed prod. zone <div style="text-align: center; font-size: 1.2em;">4346 971 N 491524 E</div>		11. SEC., T., R., M., or BLK. and Survey or Area <b>SENE</b> Sec.   11,   Township   T18S,   Range R7E	
14. Distance In Miles and Direction from Nearest Town or Post Office* <div style="text-align: center;">Approx. 6.5 mi. Northwest of Castle Dale, Utah</div>		12. County or Parish <div style="text-align: center;">EMERY</div>	
15. Distance From Proposed* Location to Nearest Property or Lease Line, Ft. (also to nearest drlg. unit line, if any)     335'		13. State <div style="text-align: center;">UT</div>	
18. Distance From Proposed Location* to Nearest Well, Drilling, Completed or Applied For, On This Lease, Ft.     485'		16. No. of Acres in Lease  17. No. of Acres Assigned To This Well	
19. Proposed Depth <div style="text-align: center;">7765'</div>		20. Rotary or Cable Tools <div style="text-align: center;">ROTARY</div>	
21. Elevations (Show whether DF, RT, GR, etc.) <div style="display: flex; justify-content: space-around;"> <span>KB</span> <span>DF</span> <span>6254'</span> <span>GR</span> </div>		22. Approx. Date Work Will Start* <div style="text-align: center;">05/15/2000</div>	

23. PROPOSED CASING AND CEMENT PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"		290'	345 SX
12-1/4"	9-5/8"		3000'	300 SX
8-3/4"	7"		<del>7400'</del> 7765'	1075 SX

Describe Proposed Program: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured true verticle depths. Give blowout preventer program, if any.

REVISED

TEXACO EXPLORATION & PRODUCTION, INC. PROPOSES TO DRILL A WATER DISPOSAL WELL TO A DEPTH OF 7765' WITH THE NAVAJO FORMATION BEING THE ZONE OF DISPOSAL. ANTICIPATED TOP OF THE NAVAJO FORMATION IS 6850' AND THE BASE BEING 7765'. IF THE WELL IS INCAPABLE OF WATER DISPOSAL, IT WILL BE PLUGGED AND ABANDONED AS PER STATE OF UTAH REQUIREMENTS.

PLEASE BE ADVISED THAT TEXACO EXPLORATION & PRODUCTION, INC. HAS BEEN AUTHORIZED BY PROPER LEASE INTEREST OWNERS TO CONDUCT OPERATIONS ON THE ABOVE MENTIONED LOCATION. TEXACO EXPLORATION & PRODUCTION, INC. AGREES TO BE RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR OPERATIONS CONDUCTED UPON THE LEASE LANDS.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY BOND NO. CO-0058 (NATIONWIDE BOND). THE PRINCIPAL IS TEXACO EXPLORATION & PRODUCTION, INC. VIA SURETY CONSENT AS PROVIDED FOR IN 43 CFR-3104.2.

RECEIVED

MAY 01 2000

Fee Bond # 6027949  
Selec Ins. Co. of N. America  
JC

**DIVISION OF  
OIL, GAS AND MINING**

24. (This space for State use only)

SIGNATURE <i>Richard Carr</i>	TITLE   Eng. Assistant	DATE   04/11/2000
TYPE OR PRINT NAME     Richard N. Carr		

API Number Assigned. 43-015-30303     APPROVAL *[Signature]*     5/8/00

# Range 7 East

[S 89°49'07" E - 2662.94']  
[S 89°51' E - 2662.44']

[N 89°53'49" E - 2657.38']  
[S 89°51' W - 2657.16']

North East Quarter

1668.93'

993.43'

Drill hole S.W.D. #3  
Elevation 6254.14'

[S 00°12'07" W - 2663.91']  
[S 00°10' W - 2663.10']

[N 01°10'46" E - 2659.48']  
[N 01°10'46" E - 2658.48']

[N 00°01'28" E - 2660.61']  
[N 00°02' W - 2656.50']

11

## Location:

The Bearings indicated are per the recorded plat obtained from the U.S. Land Office. The well location was determined using a Trimble 4700 GPS survey grade unit.

## Basis of Elevation:

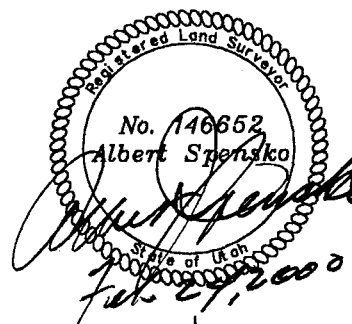
Basis of Elevation of 6080' being at the Southwest Section Corner of Section 11, Township 18 South, Range 7 East, Salt Lake Base and Meridian.

## Description of Location:

Proposed Drill Hole located in the SE1/4 NE1/4 of Section 11, T18S, R7E, S.L.B.&M., being 993.43' West and 1668.93' South from the Northeast Section Corner of Section 11, T18S R7E, Salt Lake Base & Meridian.

## Surveyor's Certificate:

I, Albert Spensko, a Registered Professional Land Surveyor, holding Certificate State of Utah, do hereby certify that the information on this drawing is a true and accurate survey as was conducted under my personal supervision, as shown hereon.



**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 101  
Price, Utah 84501  
Ph: 435-637-5032 ext. 711  
Fax: 435-637-7336

**TEXACO EXPLR. & PROD., INC**

**S.W.D. #3**

Section 11, T18S, R7E, S.L.B.&M.  
Emery County, Utah

Drawn By: J. TIMOTHY	Checked By: L.W.J.
Drawing No. A-1	Date: 02/23/00
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 020

GRAPHIC SCALE

0 500' 1000'  
( IN FEET )  
1 inch = 1000 ft.

## Legend

- Drill Hole Location
- Brass Cap (Found)
- Brass Cap (Searched for, but not found)
- △ Calculated Corner
- ) GLO
- ] GPS Measured

ATTACHMENT #2

Well name:

**5-00 Texaco SWD#3**Operator: **Texaco E&P**String type: **Surface**

Project ID:

43-015-30303

Location: **Carbon County****Design parameters:****Collapse**

Mud weight: 8.330 ppg

Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 79 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 290 ft

Cement top: Surface

**Burst**

Max anticipated surface

pressure: -3,129 psi

Internal gradient: 11.221 psi/ft

Calculated BHP 125 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Non-directional string.

**Re subsequent strings:**

Next setting depth: 7,500 ft

Next mud weight: 9.000 ppg

Next setting BHP: 3,506 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 7,500 ft

Injection pressure 7,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	290	13.375	48.00	H-40	ST&C	290	290	12.59	27.2
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	125	740	5.90	125	1730	13.79	12	322	26.34 J

Prepared RJK  
by: Utah Dept. of Natural Resources

Date: May 1, 2000  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>5-00 Texaco SWD#3</b>	
Operator:	<b>Texaco E&amp;P</b>	Project ID:
String type:	<b>Intermediate</b>	<b>43-015-30303</b>
Location:	<b>Carbon County</b>	

**Design parameters:**
**Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 118 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,475 ft

Cement top: 520 ft

**Burst**

Max anticipated surface pressure: 0 psi  
Internal gradient: 0.433 psi/ft  
Calculated BHP 1,341 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.  
Neutral point: 2,718 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 8,000 ft  
Next mud weight: 8.330 ppg  
Next setting BHP: 3,462 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 8,000 ft  
Injection pressure 8,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	3100	9.625	36.00	J-55	LT&C	3100	3100	8.796	220.8
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1341	2020	1.51	1341	3520	2.62	98	453	4.63 J

Prepared RJK  
by: Utah Dept. of Natural Resources

Date: May 1,2000  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS:NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>5-00 Texaco SWD#3</b>	
Operator:	<b>Texaco E&amp;P</b>	Project ID:
String type:	<b>Production</b>	<b>43-015-30303</b>
Location:	<b>Carbon County</b>	

**Design parameters:**
**Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 179 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 368 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: -2 psi  
Internal gradient: 0.433 psi/ft  
Calculated BHP 3,202 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.

Neutral point: 6,473 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	7400	7	23.00	N-80	LT&C	7400	7400	6.25	342
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3202	3830	1.20	3202	6340	1.98	149	442	2.97 J

Prepared RJK  
by: Utah Dept. of Natural Resources

Date: May 1,2000  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS:NONE**

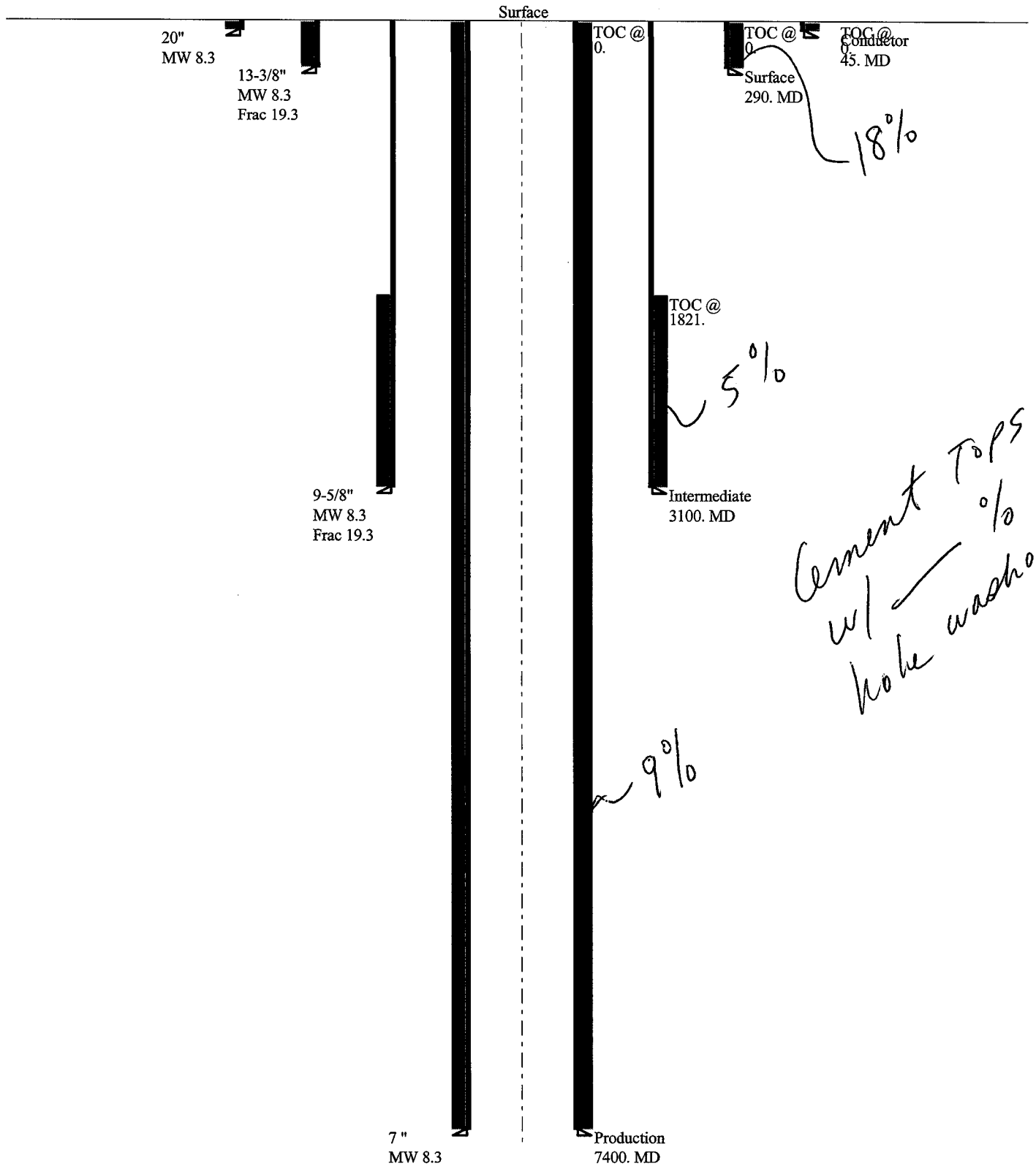
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

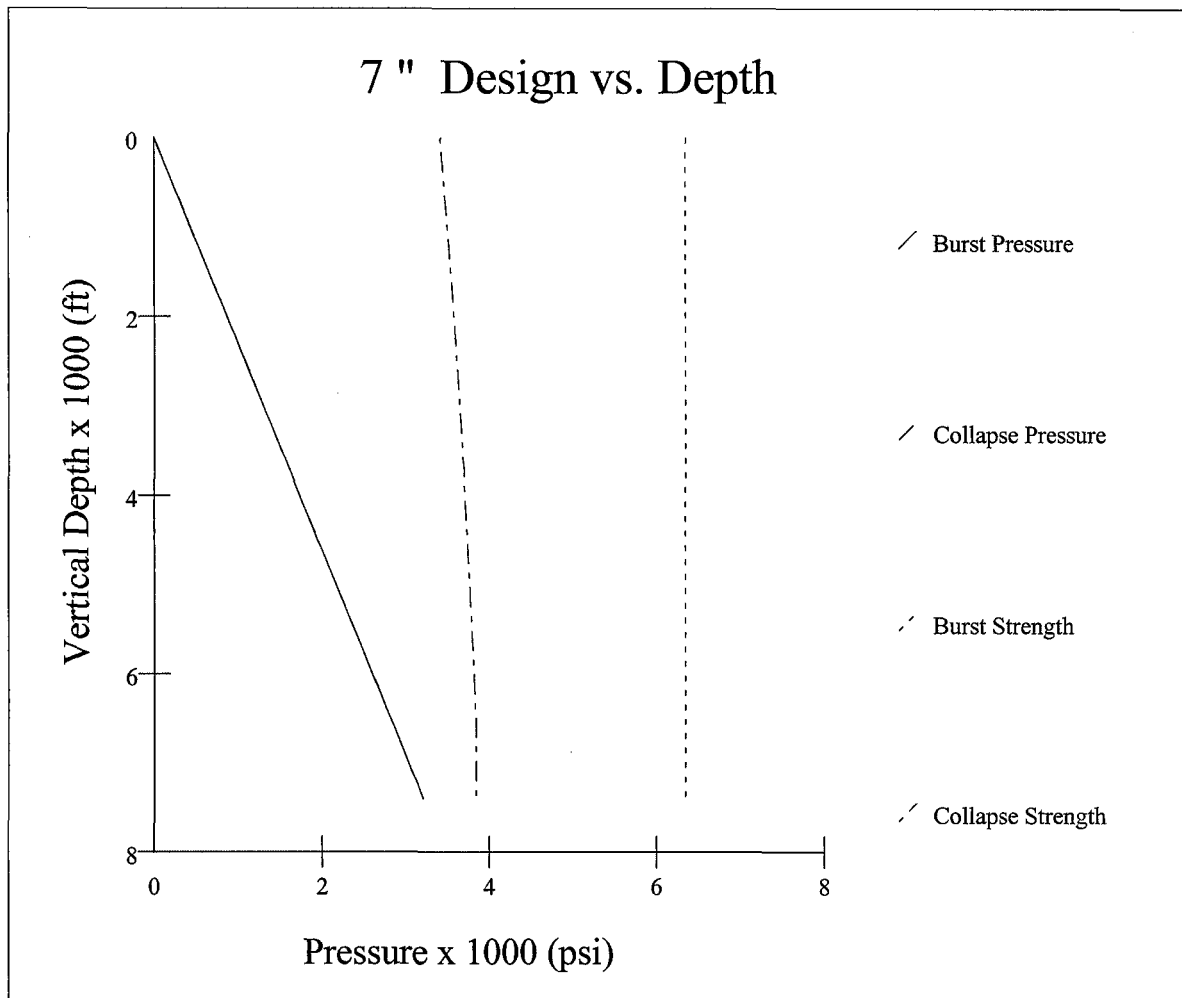
*Engineering responsibility for use of this design will be that of the purchaser.*

# 5-00 Texaco SWD#3

## Casing Schematic



5-00 Texaco SWD#3 - Production





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Kathleen Clarke  
Executive Director

Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

May 8, 2000

Texaco Exploration & Production Inc.  
3300 N Butler Ave, Suite 100  
Farmington NM 87401

Re: SWD 3 Well, 1669' FNL, 993' FEL, SE NE, Sec. 11, T. 18S, R. 7E, Emery County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the enclosed Conditions of Approval, approval to drill the referenced well is granted.

This approval will expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-015-30303.

Sincerely,

for

John R. Baza  
Associate Director

er

Enclosures

cc: Emery County Assessor



Operator: Texaco Exploration & Production Inc.

Well Name & Number: SWD 3

API Number: 43-015-30303

Lease: Fee

Location: SE NE Sec. 11 T. 18S R. 7E

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division of the following actions during drilling of this well:

- . 24 hours prior to cementing or testing casing
- . 24 hours prior to testing blowout prevention equipment
- . 24 hours prior to spudding the well
- . within 24 hours of any emergency changes made to the approved drilling program
- . prior to commencing operations to plug and abandon the well

Division contacts (please leave a voice mail message if the person is not available to take the call):

- . Dan Jarvis at (801)538-5338
- . Robert Krueger at (801)538-5274 (plugging)
- . Carol Daniels at (801)538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

5. Surface and intermediate casing shall be cemented to surface.

6. Water samples shall be obtained from the proposed injection zone upon completion of the well.

7. The proposed injection zone shall be tested upon completion of the well to determine the current formation pressure.

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: TEXACO E & P INC

Well Name: SWD 3

Api No. 43-015-30303 LEASE TYPE: FEE

Section 11 Township 18S Range 07E County EMERY

Drilling Contractor BILL MARTIN RIG # AIR

SPUDDED:

Date 05/20/2000

Time

How DRY

Drilling will commence

Reported by BRUCE LUECKING

Telephone # 1-435-749-2135

Date 05/19/2000 Signed: CHD



Texaco Exploration  
and Production Inc.  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**St. Anselm Exploration Company**  
**1401 17<sup>th</sup> Street, Suite 1400**  
**Denver, Colorado 80202**

**Subject:      Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

As required by State of Utah Oil and Gas Conservation regulations, R649-5-2.2.12, the enclosed permit application, for the proposed captioned salt water disposal well, must be provided to all operators, owners, and surface owners located within a one-half mile radius of exposure.

If you have any questions in regards to this notice, please call me at (505) 325-4397 or contact Mr. Dan Jarvis of the Division of Oil, Gas, and Mining in Salt Lake City, Utah.

Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**

## INORGANIC PARAMETERS

SWD #3

PRODUCED WATER

BICARBONATE	2290	7880
CARBONATE	<3	<10
HYDROXIDE	<3	<10
TOTAL CAC03	1870	6460
CHLORIDE	2320	1460
CONDUCTANCE	12300	12600
HARDNESS	1000	107
HARDNESS INDEX	VERY HARD	MODERATE HARD
NITRATE	<1	<0.1
NITRITE	0.005	0.005
TOTAL NITRATE/NITRITE	<1	<0.1
pH UNITS	7.6	7.4
pH TEMPERATURE	25	25
GRAVITY	1.016	1.004
SULFATE	2940	<5
TDS	9100	9200
CALCIUM	350	23
IRON	81	0.91
MAGNESIUM	31	12
POTASIUM	170	29
SODIUM	2400	3500
CORROSIVITY LANGLIERS	1.98	1.05
CATION SUM	133.1	155.2
ANION SUM	164.2	170.3
% CATION/ANION DIFFERENCE	10.5	4.66
TEMPERATURE, RECEIVING DEG C	19	19

643 11

Figure 11.

Well Locations

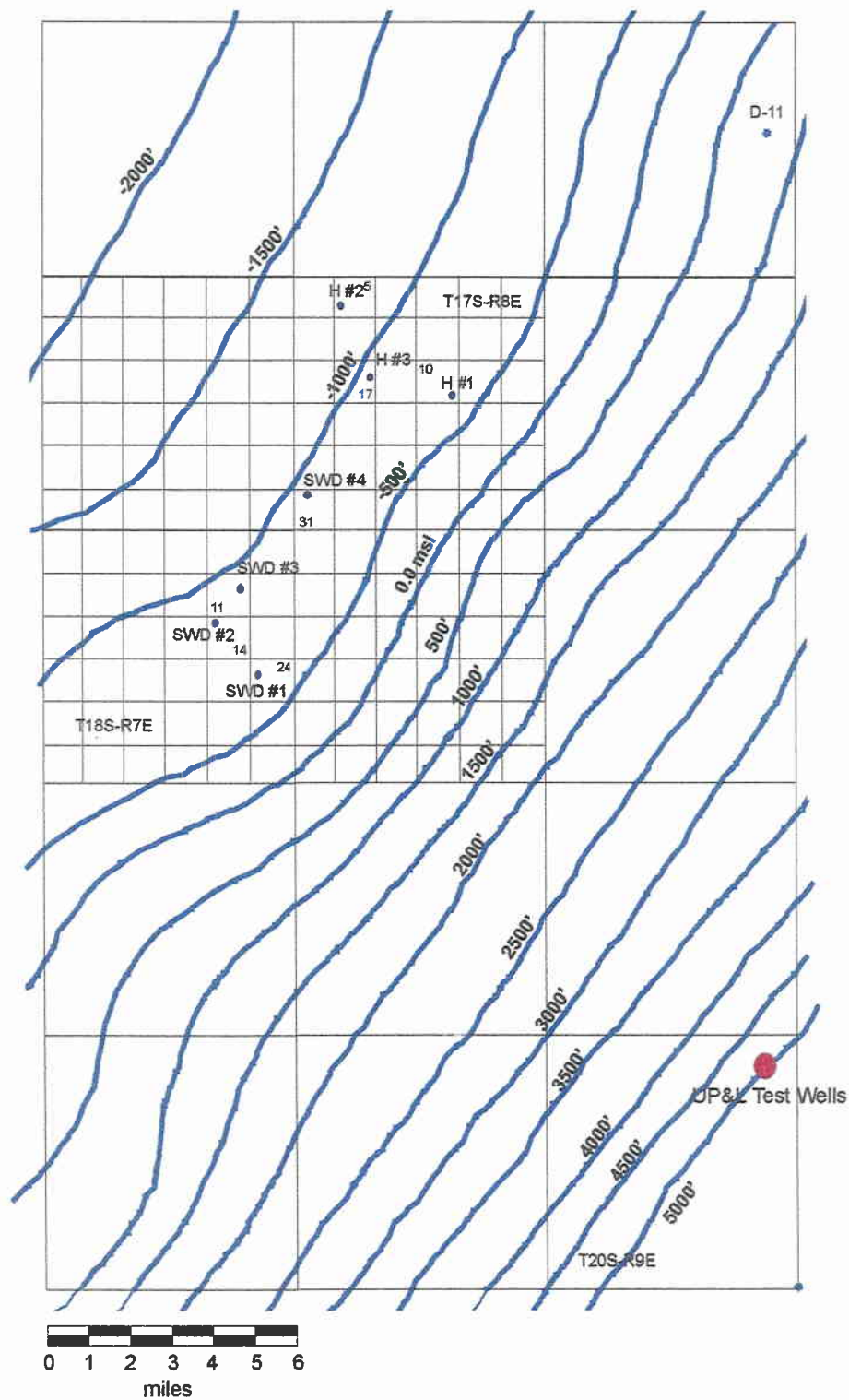


Figure 25.

Navajo Sandstone Pressure Distribution in Feb. 2000

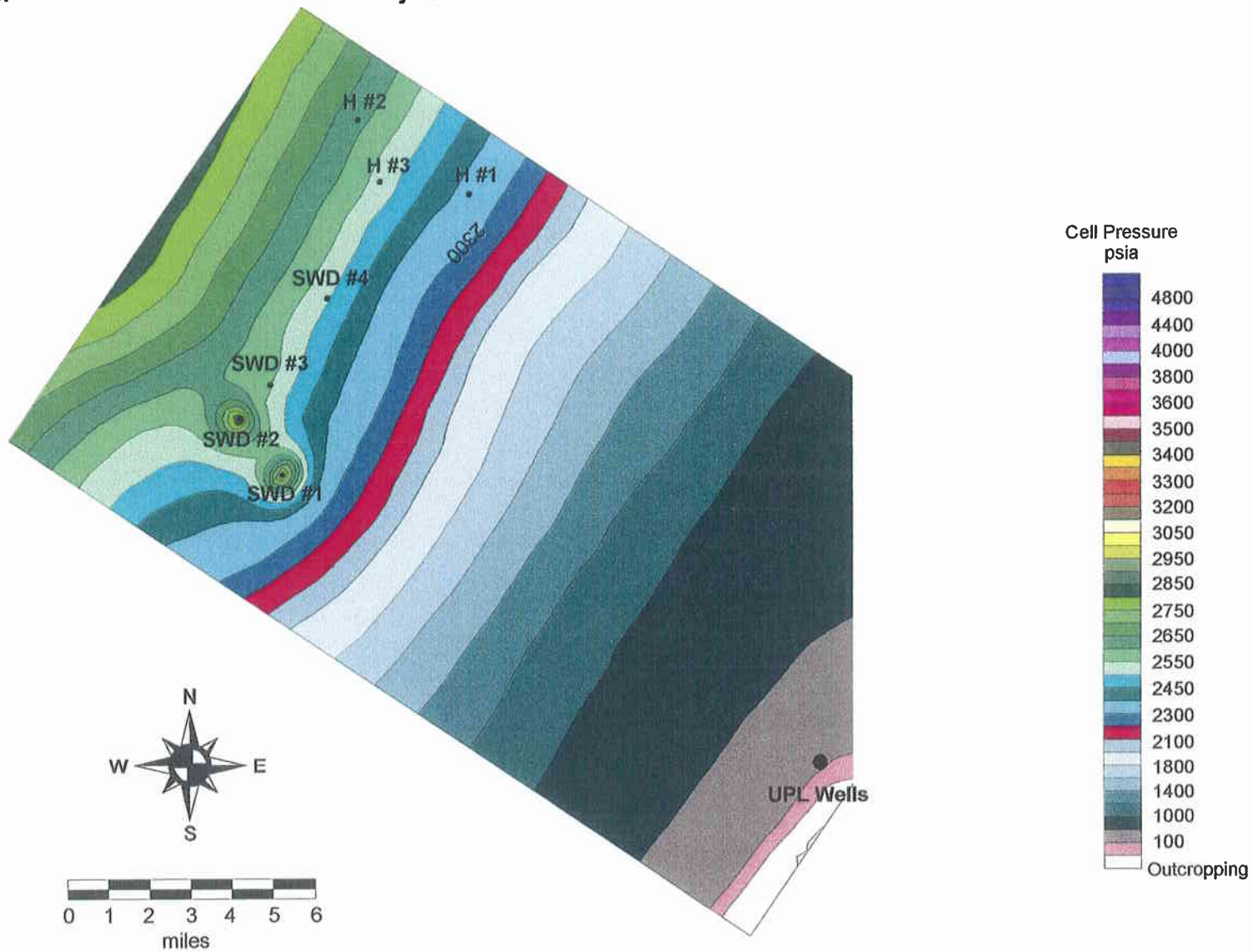


Figure 26.

Case 1 - Navajo Sandstone Pressure Distribution in Dec. 2001

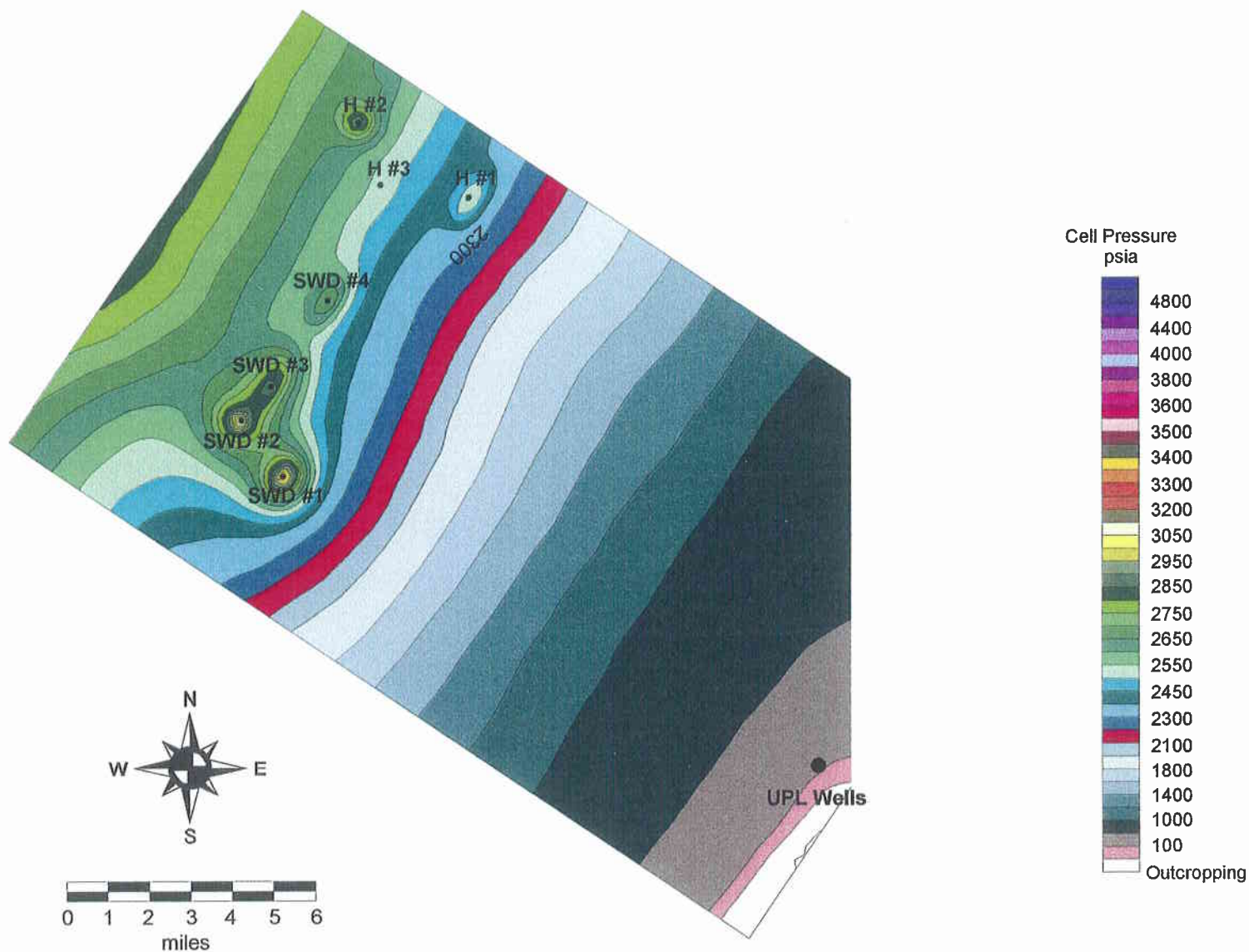




Figure 27.

Case 1 - Navajo Sandstone Pressure Distribution in Dec. 2010

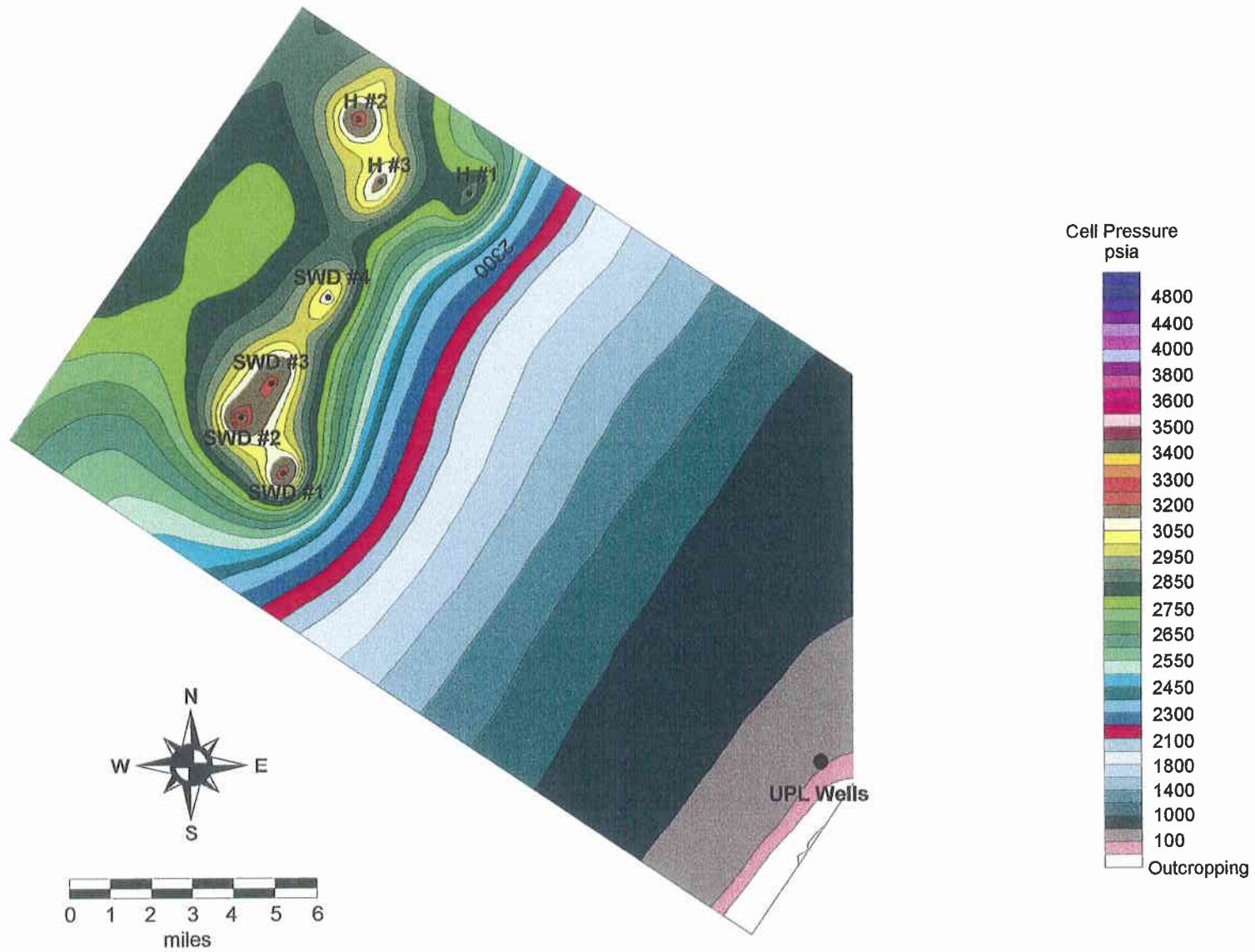
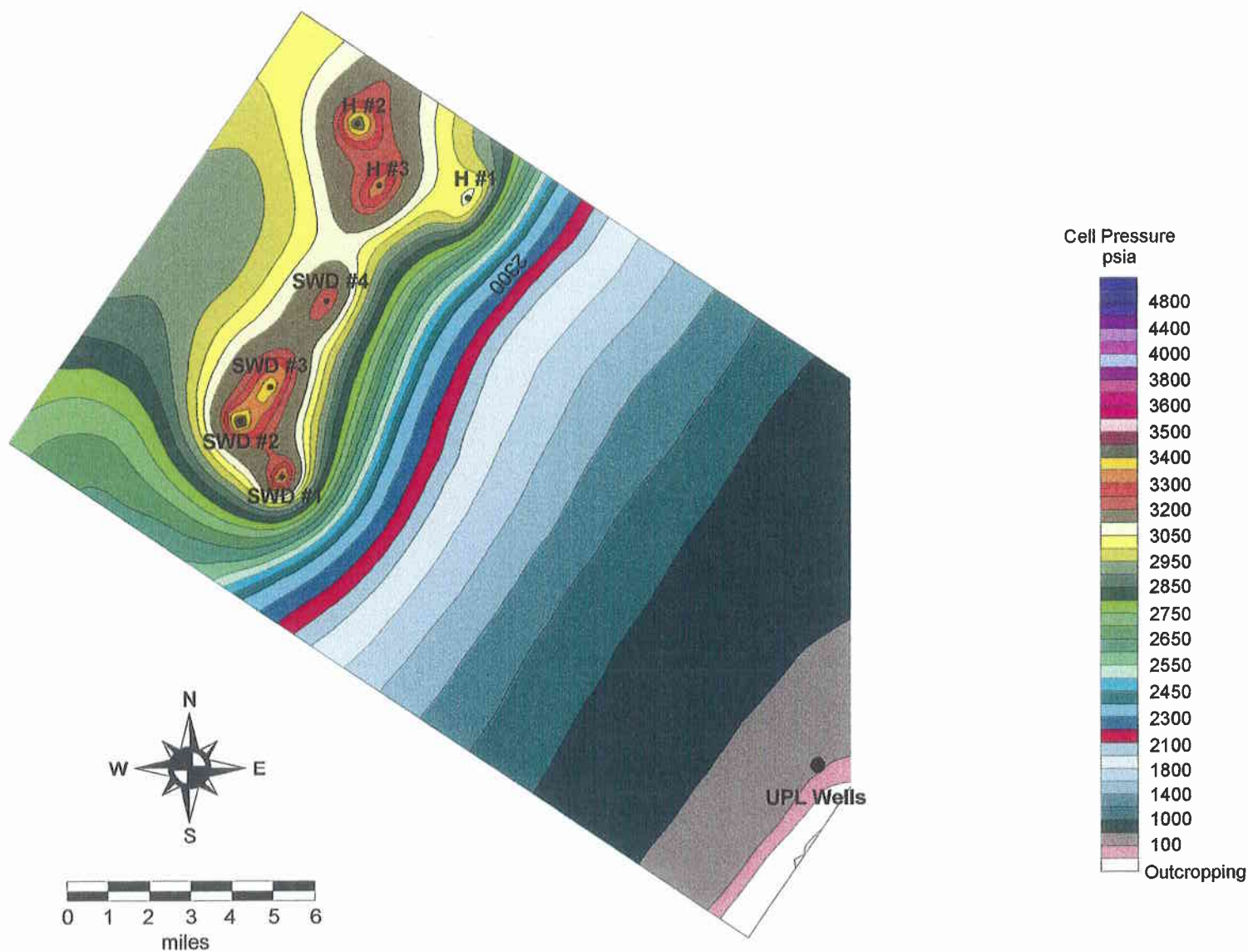




Figure 28.

Case 1 - Navajo Sandstone Pressure Distribution in Dec. 2020



**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.11**

A review of the mechanical condition of each well within a 1/2 mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.

There are no other wells located within the 1/2 mile radius of exposure.

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.12**

**(Previously Submitted 5/31/00)**

An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**State of Utah  
School & Institutional Trust Land Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

As required by State of Utah Oil and Gas Conservation regulations, R649-5-2.2.12, the enclosed permit application, for the proposed captioned salt water disposal well, must be provided to all operators, owners, and surface owners located within a one-half mile radius of exposure.

If you have any questions in regards to this notice, please call me at (505) 325-4397 or contact Mr. Dan Jarvis of the Division of Oil, Gas, and Mining in Salt Lake City, Utah.

Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Department of the Interior  
Bureau of Land Management  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

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Sincerely,

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Production Team Leader  
Farmington Operating Unit

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OIL, GAS AND MINING



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Rainbow Glass Ranch**  
**P.O. Box 422**  
**Orangeville, Utah 84537**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

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JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING





Texaco Exploration  
and Production Inc.  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Joe O. Luke and Carolyn P. Luke, Co-Trustees  
Of the Luke Family Trust dated February 21, 1992  
578 East 1650 South  
Bountiful, Utah 84010**

**Subject:      Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Donald Roger Curtis and Delores Curtis, Joint Tenants**  
**P.O. Box 211**  
**Orangeville, Utah 84537-0211**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

**RECEIVED**

**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**



Texaco Exploration  
and Production Inc.  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Anadarko Petroleum Corporation**  
**Box 1330**  
**Houston, Texas 77251-1330**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

**RECEIVED**

JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Williams Production Company**  
**One Williams Center**  
**P.O. Box 3102**  
**Tulsa, Oklahoma 74101**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

**RECEIVED**

JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Kidd Family Partnership Limited**  
**3838 Oak Lawn Avenue, Suite 725**  
**Dallas, Texas 75219**

**Subject:     Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E  
R649-5-2-2.12

Dear Ms. / Mr.:

As required by State of Utah Oil and Gas Conservation regulations, R649-5-2.2.12, the enclosed permit application, for the proposed captioned salt water disposal well, must be provided to all operators, owners, and surface owners located within a one-half mile radius of exposure.

If you have any questions in regards to this notice, please call me at (505) 325-4397 or contact Mr. Dan Jarvis of the Division of Oil, Gas, and Mining in Salt Lake City, Utah.

Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

Enclosure

**RECEIVED**

JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING



Texaco Exploration  
and Production Inc.  
Allen R. Davis - Manager  
Farmington Operating Unit

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 30, 2000

**Security Energy Company**  
**10000 Memorial Drive, Suite 440**  
**Houston, Texas 77024**

**Subject:      Application for Injection Well - UIC Form 1**  
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Sincerely,

Al Davis  
Production Team Leader  
Farmington Operating Unit

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DIVISION OF  
OIL, GAS AND MINING





**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

May 31, 2000

Mr. Dan Jarvis  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Subject:**     **Application for Injection Well - UIC Form 1**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3     43-015-30303  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Jarvis:

Enclosed for your review is an injection application for the above captioned well. The application includes information necessary to proceed with the public comment period. Please proceed with the public notice announcements.

If you have any questions or require additional assistance, please contact me at (505) 325-4397 ext. 11.

Sincerely,

Ian M. Kephart  
Production Engineer  
Farmington Operating Unit

Enclosures

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JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING

**JUN 05 2000**

**DIVISION OF**  
**OIL, GAS AND MINING**

**Regulatory Compliance Record**

**R649-5-2-**

<b>2</b>	<b>Application Form 1</b>	<b>Attached form</b>
<b>2.1</b>	<b>Plat showing the location of well &amp; 1/2 mile radius of exposure</b>	<b>Attached map</b>
<b>2.2</b>	<b>Copies of logs (radioactive &amp; electrical)</b>	<b>To be Submitted to DOGM under separate cover from Dowell / Schlumberger (APD stipulations)</b>
<b>2.3</b>	<b>Copy of cement bond logs</b>	<b>To be Submitted to DOGM under separate cover from Dowell / Schlumberger (APD stipulations)</b>
<b>2.4</b>	<b>Copies of existing logs</b>	<b>To be submitted later</b>
<b>2.5</b>	<b>Description of casing</b>	<b>Attached table</b>
<b>2.6</b>	<b>Type of fluid, source and estimated volumes / daily</b>	<b>To be submitted later</b>
<b>2.7</b>	<b>Standard lab analysis of fluid Compatibility of the fluids</b>	<b>To be submitted later</b>
<b>2.8</b>	<b>Proposed pressures</b>	<b>To be submitted later</b>
<b>2.9</b>	<b>Evidence and data to support that the well will not initiate fractures to enter fresh water</b>	<b>To be submitted later</b>
<b>2.10</b>	<b>Geological data</b>	<b>To be submitted later</b>
<b>2.11</b>	<b>Review of mechanical conditions</b>	<b>To be submitted later</b>
<b>2.12</b>	<b>Affidavit certifying copies have been sent to all owners, operators and surface owners within a 1/2 mile radius</b>	<b>Attached list of affected individuals and copies of Letters mailed</b>  <b>Affidavit enclosed</b>

Comments:

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.1**

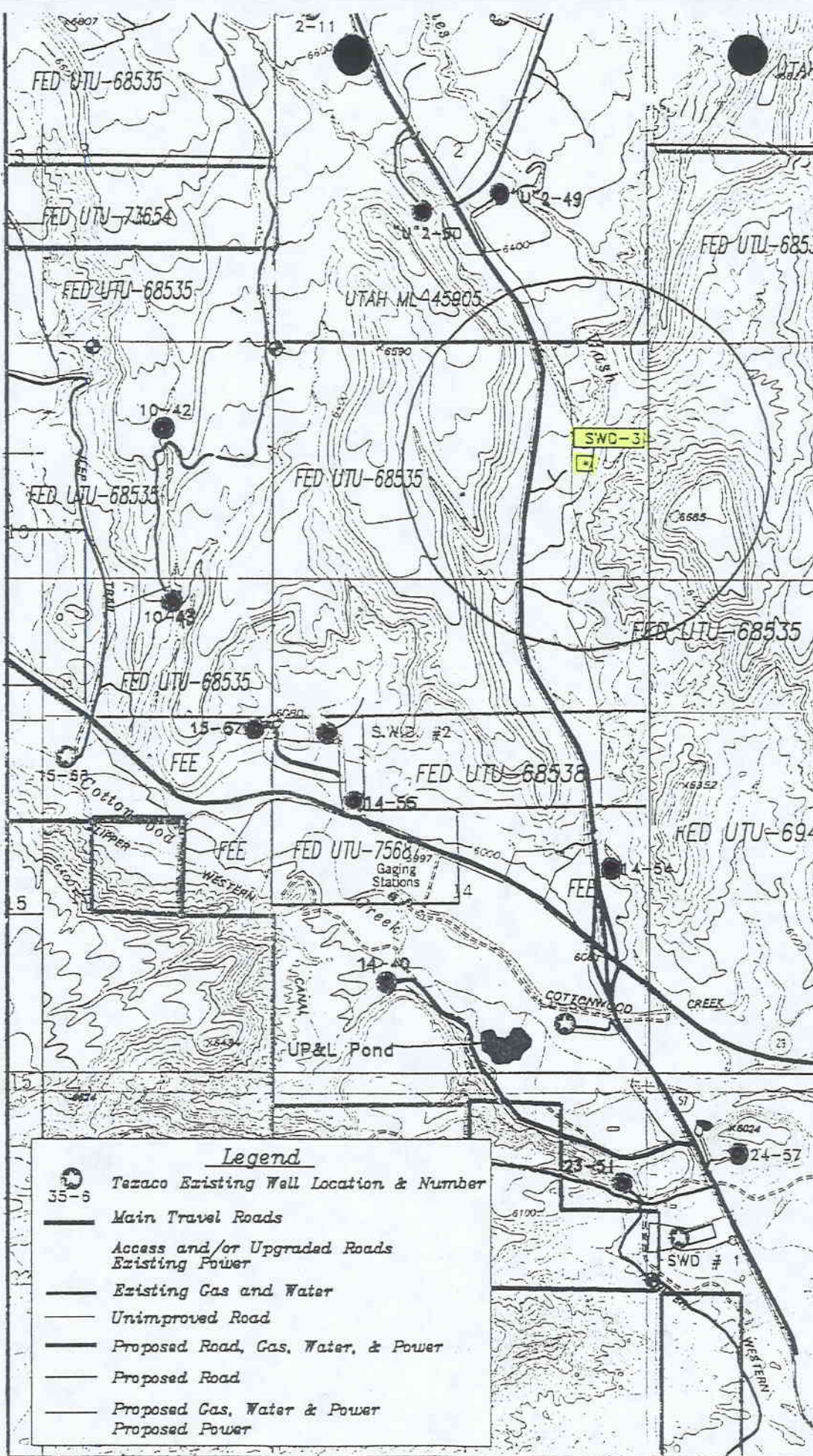
Plat showing the location of the well, all abandoned or active wells within 1/2 mile radius of proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a 1/2 mile radius of the proposed injection well.

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**





**Talon Resources, Inc.**  
 375 South Carbon Avenue, Suite 126  
 Price, Utah 84501  
 Ph: 435-637-5032 ext. 711  
 Fax: 435-748-5085

**TEXACO E & P**  
**S.W.D. 3**

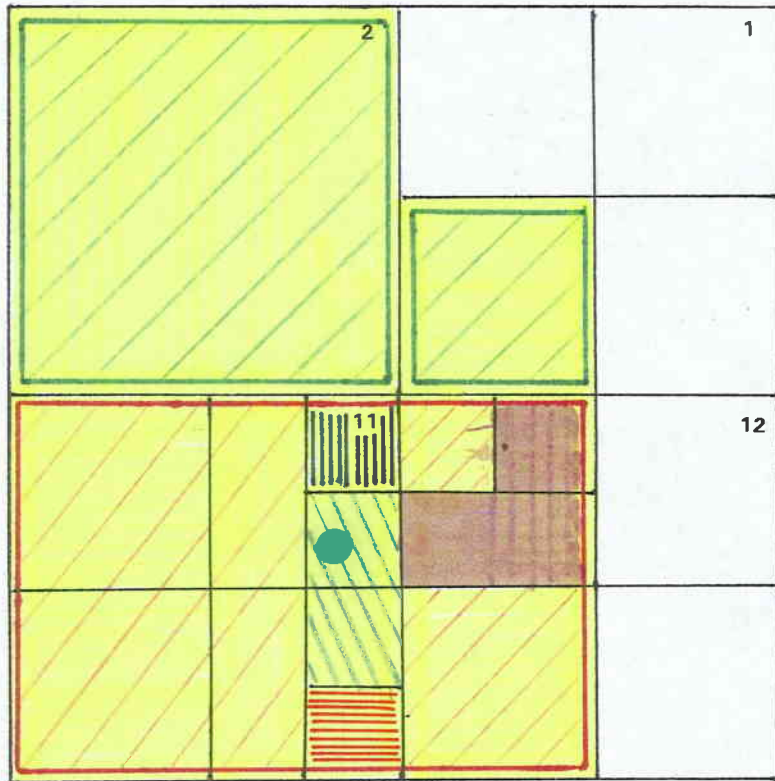
Section 11, T18S, R7E, S.L.B.&M.  
 Emery County, Utah

Drawn By JAT	Checked By DSH
Drawing No. L-1	Date 2/24/00
	Scale 1" = 2000'
Sheet 4 of 4	Job No. 000



# SWD #3

T-18-S, R-7-E  
Emery County, UT



## OIL & GAS LEASEHOLD OWNERS:

Texaco Exploration and Production Inc.  
P.O. Box 2100  
Denver, Colorado 80201

Williams Production Company  
One Williams Center  
P.O. Box 3102  
Tulsa, Oklahoma 74101

Kidd Family Partnership Limited  
3838 Oak Lawn Avenue, Suite 725  
Dallas, Texas 75219

Security Energy Company  
10000 Memorial Drive, Suite 440  
Houston, Texas 77024

St. Anselm Exploration Company  
1401 17<sup>th</sup> Street, Suite 1400  
Denver, Colorado 80202

## SURFACE OWNERS:

State of Utah  
School & Institutional Trust Lands Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818  
**ALL - SECTION 2, T18S, R7E**  
**SW/4 - SECTION 1, T18S, R7E**

Department of the Interior  
Bureau of Land Management  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155  
**W/2 - SECTION 11, T18S, R7E - W/2, W/2 E/2**  
**NW/4 NW/4, SW/4 - SECTION 12, T18S, R7E**

Rainbow Glass Ranch  
P.O. Box 422  
Orangeville, Utah 84537  
**S/2 NW/4, NE/4 NW/4 - SECTION 12, T18S, R7E**

Donald Roger Curtis and Delores Curtis, Joint Tenants  
P.O. Box 211  
Orangeville, Utah 84537-0211  
**SE/4 SE/4 - SECTION 11, T18S, R7E**

Joe O. Luke and Carolyn P. Luke, Co-Trustees  
of the Luke Family Trust dated February 21, 1992  
578 East 1650 South  
Bountiful, Utah 84010  
**NE/4 NE/4 - SECTION 11, T18S, R7E**

Texaco Exploration and Production Inc.  
P.O. Box 2100  
Denver, Colorado 80201  
**SE/4 NE/4, NE/4 SE/4 - SECTION 11, T18S, R7E**

## MINERAL OWNERS:

State of Utah  
School & Institutional Trust Lands Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818  
**ML-45905 (ALL - SECTION 2, T18S, R7E)**  
**ML-48201 (SW/4 - SECTION 1, T18S, R7E)**

Department of the Interior  
Bureau of Land Management  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155  
**UTU-68535 (ALL - SECTION 11, T18S, R7E & W/2 - SECTION 12, T18S, R7E)**

Anadarko Petroleum Corporation (Overriding Royalty only in UTU-68535)  
Box 1330  
Houston, Texas 77251-1330

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

Requirements R649 - 5 - 2 - 2.5

Description of the casing and proposed testing procedure

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**



### Proposed Casing Program

#### TUBULAR PROGRAM

<u>String Type</u>	<u>Hole Size</u>	<u>Depth</u>	<u>Feet</u>	<u>Casing Diameter</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection Type</u>
Conductor	26"	40'	40'	20"			BT&C
Surface	17 1/2"	300'	300'	13 3/8"	48#	H-40	LT&C
Intermediate	12 1/4"	3000'	3000'	9 5/8"	36#	K-55	LT&C
Production	8 3/4"	7765'	7765'	7"	23#	N-80	LT&C

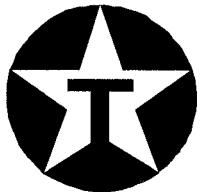
#### CEMENT PROGRAM

<u>String Type</u>	<u>DV Depth</u>	<u>Stage Lead/Tail</u>	<u>Cement Bottom</u>	<u>Cement Top</u>	<u>No. Sacks</u>	<u>Cement Type</u>	<u>Cmt Yield</u>	<u>Cmt Weight</u>
Surface			300'	Surface	375	G	1.15	15.8
Intermediate	600'	2 <sup>nd</sup> Stage	600'	Surface	175	RFC 10-1	1.61	14.2
		1 <sup>st</sup> Stage	3000'	2500'	150	RFC 10-1	1.61	14.2
Production	6500'	2 <sup>nd</sup> Stage	6500'	Surface	775	50/50 Poz	1.91	12.5
		1 <sup>st</sup> Stage	7765'	6500'	225	G	1.15	15.8

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JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING



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## SWD #3

API #43-015-30303

### PROPOSED COMPLETION

JUN 05 2000

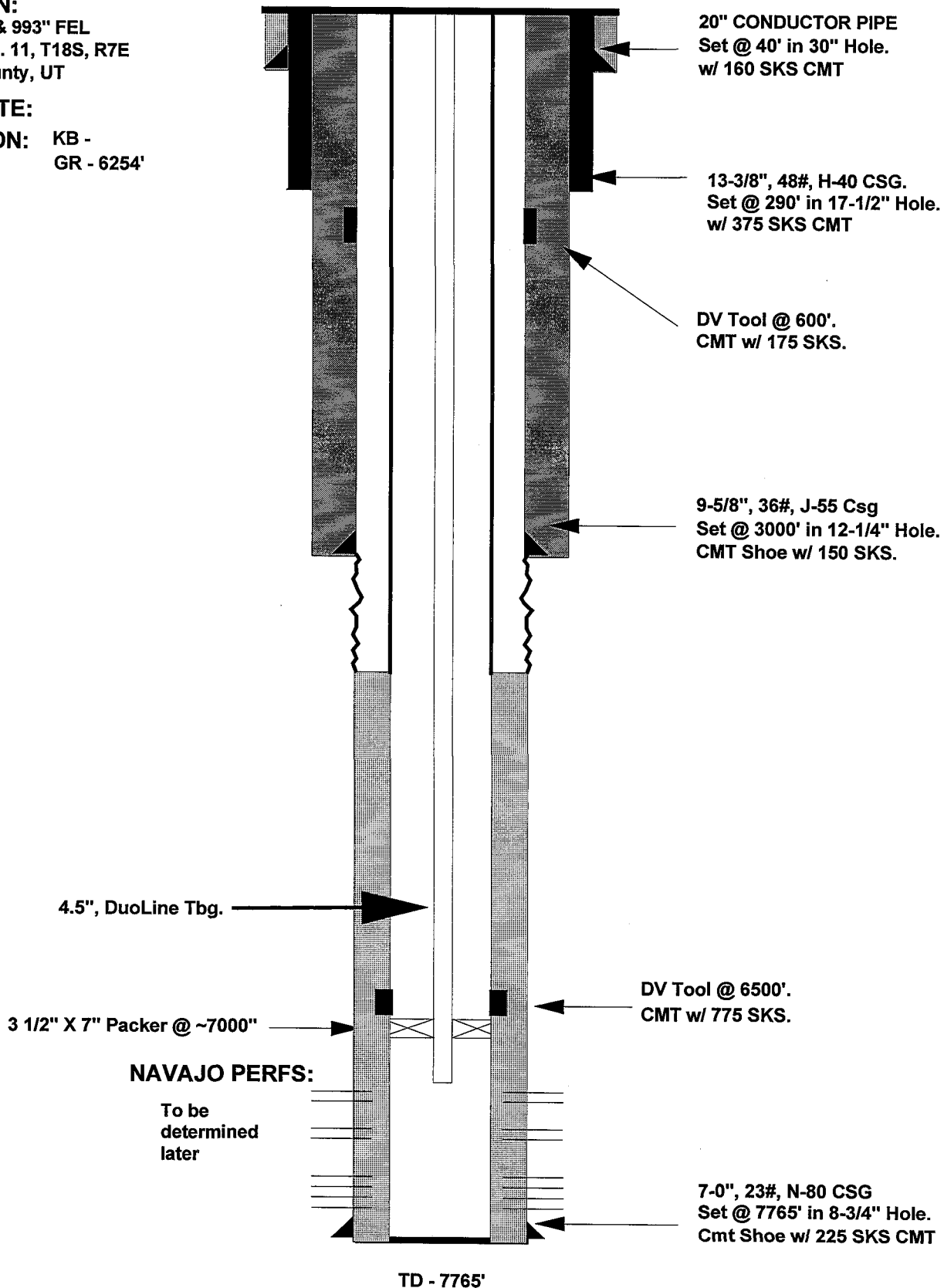
DIVISION OF  
OIL, GAS AND MINING

#### LOCATION:

1669' FNL & 993' FEL  
SE/NE, Sec. 11, T18S, R7E  
Emery County, UT

#### SPUD DATE:

ELEVATION: KB -  
GR - 6254'



**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.12**

An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.

**Affidavit is Enclosed**

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**JUN 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**

Texaco Exploration and Production Inc.  
3300 North Butler, Suite 100  
Farmington, New Mexico 87401  
(505) 325-4397  
FAX (505) 325-5398

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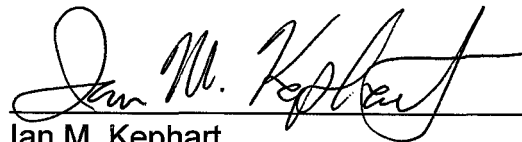
JUN 05 2000

DIVISION OF  
OIL, GAS AND MINING

SWD #3  
1669' FNL AND 993' FEL  
SE/NE of Section 11, Township 18 South, Range 7 East

I, Ian M. Kephart, Production Engineer for Texaco North American Production Inc., hereby certify the following:

A copy of the permit application for the above captioned salt water disposal well, has been provided to all surface owners and operators located within a 1/2 mile radius exposure of the location:



Ian M. Kephart  
Production Engineer  
Farmington Production Team  
Texaco North American Production, Inc.

Subscribed and sworn before me this 31<sup>st</sup> th day of May 31, 2000.

Witness my hand and official seal.

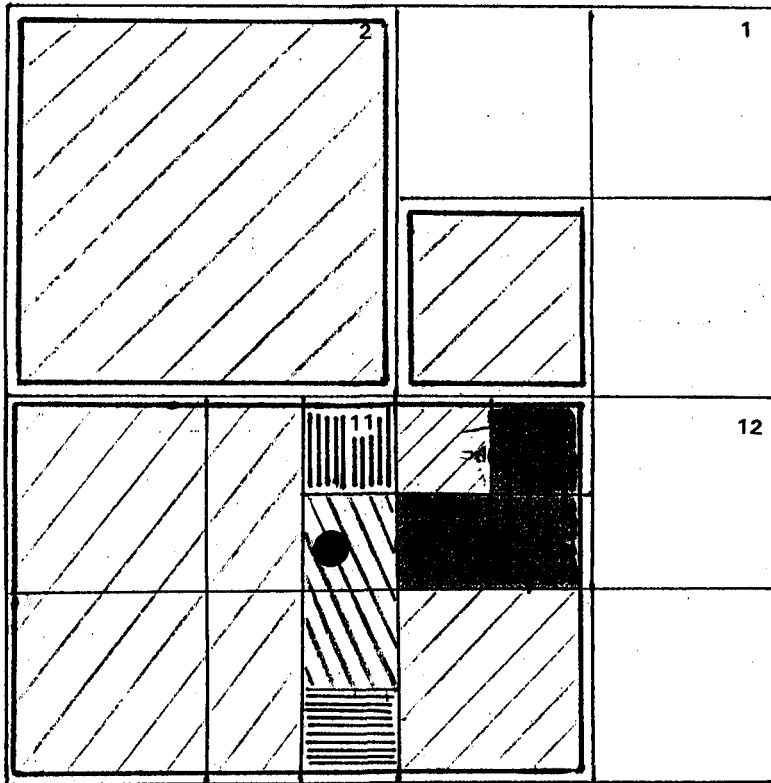
(SEAL)

  
Notary Public Residing at:

600 E. 20<sup>th</sup> St  
Farmington NM 87401

My Commission Expires: Aug 2, 2003

JUN 05 2000

DIVISION OF  
OIL, GAS AND MININGT-18-S, R-7-E  
Emery County, UTOIL & GAS LEASEHOLD OWNERS:

Texaco Exploration and Production Inc.  
P.O. Box 2100  
Denver, Colorado 80201

Williams Production Company  
One Williams Center  
P.O. Box 3102  
Tulsa, Oklahoma 74101

Kidd Family Partnership Limited  
3838 Oak Lawn Avenue, Suite 725  
Dallas, Texas 75219

Security Energy Company  
10000 Memorial Drive, Suite 440  
Houston, Texas 77024

St. Anselm Exploration Company  
1401 17<sup>th</sup> Street, Suite 1400  
Denver, Colorado 80202

SURFACE OWNERS:

State of Utah  
School & Institutional Trust Lands Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818  
ALL - SECTION 2, T18S, R7E  
SW/4 - SECTION 1, T18S, R7E

Department of the Interior  
Bureau of Land Management  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155  
- SECTION 11, T18S, R7E - W/2, W/2 E/2  
NW/4 NW/4, SW/4 - SECTION 12, T18S, R7E

Rainbow Glass Ranch  
P.O. Box 422  
Orangeville, Utah 84537  
S/2 NW/4, NE/4 NW/4 - SECTION 12, T18S, R7E

Donald Roger Curtis and Delores Curtis, Joint Tenants  
P.O. Box 211  
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Bountiful, Utah 84010  
NE/4 NE/4 - SECTION 11, T18S, R7E

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P.O. Box 2100  
Denver, Colorado 80201  
SE/4 NE/4, NE/4 SE/4 - SECTION 11, T18S, R7E

MINERAL OWNERS:

State of Utah  
School & Institutional Trust Lands Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818  
ML-45905 (ALL - SECTION 2, T18S, R7E)  
ML-48201 (SW/4 - SECTION 1, T18S, R7E)

Department of the Interior  
Bureau of Land Management  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155  
UTU-68535 (ALL - SECTION 11, T18S, R7E &  
W/2 - SECTION 12, T18S, R7E)

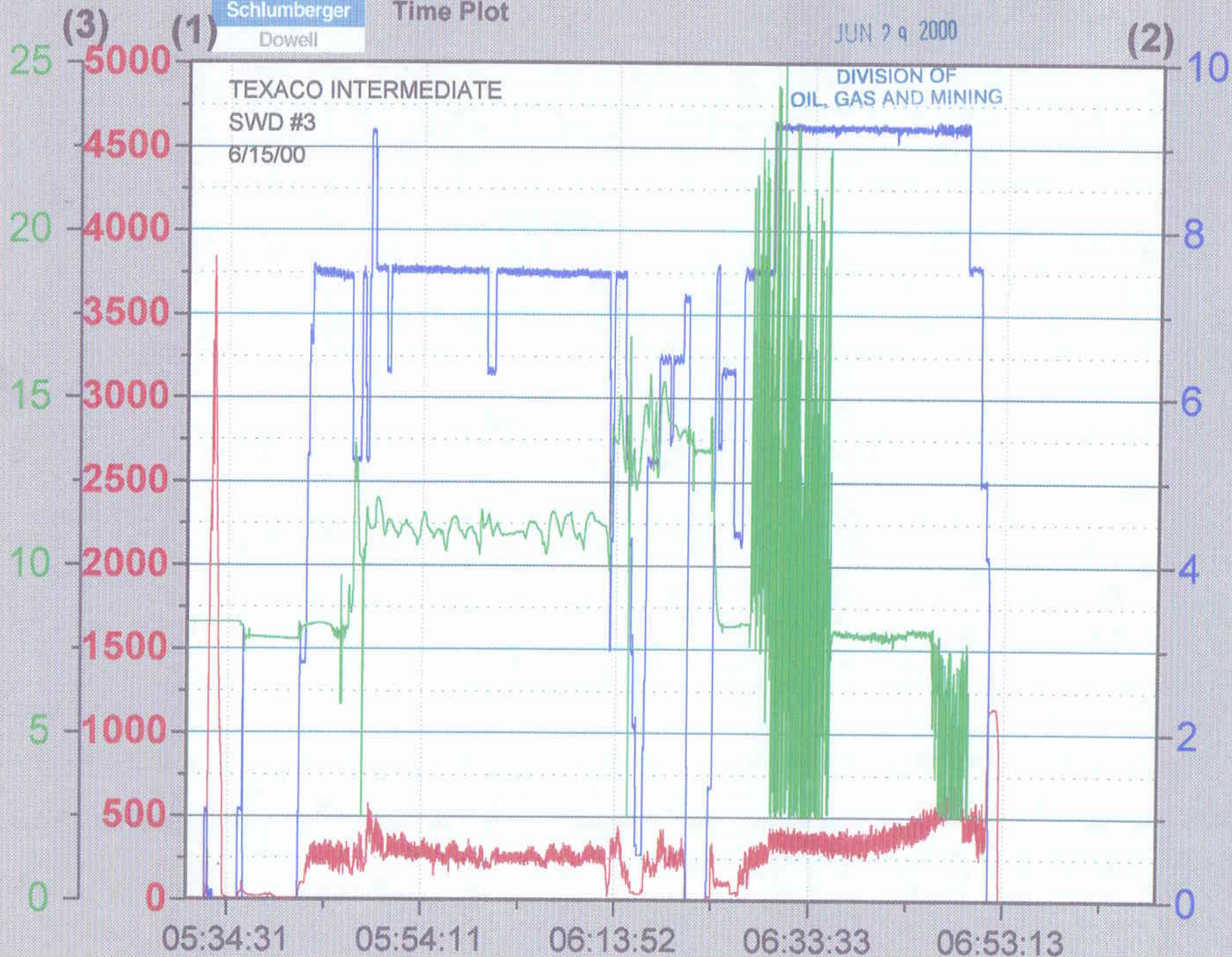
Anadarko Petroleum Corporation (Overriding Royalty only in UTU-68535)  
Box 1330  
Houston, Texas 77251-1330

Schlumberger  
Dowell

PRISM\*  
Time Plot

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JUN 29 2000



290 1815  
168 1615



## Cementing Service Report

Customer TEXACO EXPL & PROD INC.				Job Number 20163684																																																																																																																																																																																																			
Well SWD #3		Location (legal)		Dowell Location Vernal, UT		Job Start 6/15/00																																																																																																																																																																																																	
Field		Formation Name/Type Shale		Deviation 1 °		Bit Size 12.3 in																																																																																																																																																																																																	
County Emery		State/Province UT		Well MD 3,019 ft		Well TVD 3,010 ft																																																																																																																																																																																																	
Rig Name		Drilled For Disposal		Service Via Land		BHP 0 psi																																																																																																																																																																																																	
Offshore Zone		Well Class New		Well Type Development		BHST 0 °F																																																																																																																																																																																																	
Drilling Fluid Type Bentonite		Max. Density 9.5 lb/gal		Plastic Viscosity 40 cp		BHCT 0 °F																																																																																																																																																																																																	
Service Line Cementing		Job Type Cem Interm Casing		Casing/Liner Depth, ft 3019		Weight, lb/ft 36																																																																																																																																																																																																	
Max. Allowed Tubing Pressure 4500 psi		Max. Allowed Ann. Pressure 0 psi		Wellhead Connection Single cement head		Grade K55																																																																																																																																																																																																	
Service Instructions Drop top plug. Pump 30 bbl ahead mix and pump 315 sks hi lift 12% D20, 1% D79, 0.5% D112, 0.2% D46, 2% S1, 0.25#/sk D29, as lead. Mix and pump 155 sks 10:2 RFC, 0.25#/sk D29. Displace with 230 bbl H2O.		Tubing/Drill Pipe Depth, ft 0		Size, in 9.63		Weight, lb/ft 0																																																																																																																																																																																																	
Casing/Tubing Secured <input type="checkbox"/>		1 Hole Volume Circulated prior to Cementing <input type="checkbox"/>		Perforations/Open Hole Top, ft 0		Bottom, ft 0																																																																																																																																																																																																	
Lift Pressure: psi		Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input checked="" type="checkbox"/>		No. of Shots 0																																																																																																																																																																																																	
No. Centralizers: 10		Top Plugs: 1		Bottom Plugs: 1		Total Interval 0 ft																																																																																																																																																																																																	
Cement Head Type: Single		Job Scheduled For: 6/14/00 23:30		Arrived on Location: 6/15/00 8:00		Diameter 0 in																																																																																																																																																																																																	
Leave Location: 6/15/00 8:00		Treat Down Casing		Displacement 229.7 bbl		Packer Type None																																																																																																																																																																																																	
Casing Tools		Squeeze Job		Tubing Vol. 0 bbl		Casing Vol. 230 bbl																																																																																																																																																																																																	
Shoe Type: Guide		Squeeze Type		Annular Vol. 0 bbl		Open Hole Vol. 0 bbl																																																																																																																																																																																																	
Shoe Depth: 3019 ft		Tool Type:		Collar Type: Float		Tail Pipe Size: 0 in																																																																																																																																																																																																	
Stage Tool Type		Tool Depth: 0 ft		Collar Depth: 2972 ft		Sqz Total Vol: 0 bbl																																																																																																																																																																																																	
Stage Tool Depth: 0 ft		Tail Pipe Depth: 0 ft																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th>Time</th> <th>CumVol</th> <th>Density</th> <th>Elapsed Time</th> <th>Pressure U1</th> <th>Total Flowrate</th> <th colspan="2">Message</th> </tr> <tr> <th>24 hr clock</th> <th>bbl</th> <th>ppg</th> <th>min</th> <th>psi</th> <th>bpm</th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>5:30</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>START ACQUISITION</td></tr> <tr><td>5:30</td><td>0.</td><td>8.31</td><td>0.017</td><td>4.58</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:31</td><td>0.</td><td>8.31</td><td>1.03</td><td>4.58</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:32</td><td>0.</td><td>8.31</td><td>1.03</td><td>4.58</td><td>0.</td><td>0</td><td>SAFETY MEETING WITH CREW</td></tr> <tr><td>5:32</td><td>0.246</td><td>8.31</td><td>2.03</td><td>64.1</td><td>1.04</td><td>0</td><td>Pressure Test Lines</td></tr> <tr><td>5:32</td><td>0.246</td><td>8.31</td><td>2.03</td><td>64.1</td><td>1.04</td><td>0</td><td></td></tr> <tr><td>5:33</td><td>0.372</td><td>8.31</td><td>3.04</td><td>2033</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:34</td><td>0.372</td><td>8.31</td><td>4.05</td><td>18.32</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:35</td><td>0.372</td><td>8.31</td><td>4.05</td><td>18.32</td><td>0.</td><td>0</td><td>START WATER AHEAD 30 BBL</td></tr> <tr><td>5:35</td><td>0.372</td><td>8.32</td><td>5.05</td><td>9.16</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:36</td><td>1.06</td><td>7.86</td><td>6.06</td><td>32.05</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:37</td><td>1.06</td><td>7.86</td><td>7.07</td><td>22.89</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:38</td><td>1.06</td><td>7.84</td><td>8.07</td><td>32.05</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:39</td><td>1.06</td><td>7.83</td><td>9.08</td><td>18.32</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:40</td><td>1.06</td><td>7.81</td><td>10.09</td><td>13.74</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:41</td><td>1.06</td><td>7.8</td><td>11.09</td><td>13.74</td><td>0.</td><td>0</td><td></td></tr> <tr><td>5:41</td><td>1.06</td><td>7.8</td><td>11.09</td><td>13.74</td><td>0.</td><td>0</td><td>START WATER AHEAD</td></tr> <tr><td>5:42</td><td>3.49</td><td>8.21</td><td>12.1</td><td>178.6</td><td>5.3</td><td>0</td><td></td></tr> <tr><td>5:43</td><td>10.48</td><td>8.26</td><td>13.11</td><td>325.1</td><td>7.5</td><td>0</td><td></td></tr> <tr><td>5:44</td><td>18.02</td><td>8.25</td><td>14.11</td><td>224.4</td><td>7.52</td><td>0</td><td></td></tr> <tr><td>5:45</td><td>25.57</td><td>7.86</td><td>15.12</td><td>192.3</td><td>7.47</td><td>0</td><td></td></tr> <tr><td>5:46</td><td>33.07</td><td>8.16</td><td>16.13</td><td>256.4</td><td>7.44</td><td>0</td><td></td></tr> </tbody> </table>								Time	CumVol	Density	Elapsed Time	Pressure U1	Total Flowrate	Message		24 hr clock	bbl	ppg	min	psi	bpm			5:30	0	0	0	0	0	0	START ACQUISITION	5:30	0.	8.31	0.017	4.58	0.	0		5:31	0.	8.31	1.03	4.58	0.	0		5:32	0.	8.31	1.03	4.58	0.	0	SAFETY MEETING WITH CREW	5:32	0.246	8.31	2.03	64.1	1.04	0	Pressure Test Lines	5:32	0.246	8.31	2.03	64.1	1.04	0		5:33	0.372	8.31	3.04	2033	0.	0		5:34	0.372	8.31	4.05	18.32	0.	0		5:35	0.372	8.31	4.05	18.32	0.	0	START WATER AHEAD 30 BBL	5:35	0.372	8.32	5.05	9.16	0.	0		5:36	1.06	7.86	6.06	32.05	0.	0		5:37	1.06	7.86	7.07	22.89	0.	0		5:38	1.06	7.84	8.07	32.05	0.	0		5:39	1.06	7.83	9.08	18.32	0.	0		5:40	1.06	7.81	10.09	13.74	0.	0		5:41	1.06	7.8	11.09	13.74	0.	0		5:41	1.06	7.8	11.09	13.74	0.	0	START WATER AHEAD	5:42	3.49	8.21	12.1	178.6	5.3	0		5:43	10.48	8.26	13.11	325.1	7.5	0		5:44	18.02	8.25	14.11	224.4	7.52	0		5:45	25.57	7.86	15.12	192.3	7.47	0		5:46	33.07	8.16	16.13	256.4	7.44	0	
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Well		Field				Service Date		Customer	Job Number
SWD #3								TEXACO EXPL & PROD INC	20163684
Time	CumVol	Density	Elapsed Time	Pressure U1	TotFlowrate			Message	
24 hr clock	bbl	ppg	min	psi	bpm				
5:46	33.07	8.16	16.13	256.4	7.44	0	0	Start Cement Slurry 204 BBL	
5:47	39.37	12.78	17.13	224.4	5.26	0	0		
5:48	45.57	11.72	18.13	210.6	5.24	0	0		
5:49	53.52	12.01	19.14	416.7	7.52	0	0		
5:50	61.	11.19	20.15	251.8	6.32	0	0		
5:51	68.22	10.99	21.15	393.8	7.48	0	0		
5:52	75.84	11.31	22.16	325.1	7.54	0	0		
5:53	75.84	11.31	22.16	325.1	7.54	0	0	DENSITY 11.1 MUD SCALE	
5:53	83.42	10.73	23.17	306.8	7.52	0	0		
5:54	91.02	11.32	24.18	261.	7.56	0	0		
5:55	98.59	11.02	25.18	283.9	7.52	0	0		
5:56	106.2	10.49	26.19	279.3	7.57	0	0		
5:57	113.7	11.47	27.2	325.1	7.5	0	0		
5:58	121.3	10.99	28.2	270.1	7.52	0	0		
5:59	128.9	10.77	29.21	247.3	7.54	0	0		
6:00	136.4	11.28	30.22	206.	6.34	0	0		
6:01	143.	11.21	31.22	251.8	7.54	0	0		
6:02	150.6	10.92	32.23	288.5	7.52	0	0		
6:03	150.6	10.92	32.23	288.5	7.52	0	0	DENSITY 11.0 MUD SCALE	
6:03	158.2	11.	33.24	270.1	7.5	0	0		
6:04	165.7	10.96	34.25	224.4	7.5	0	0		
6:05	173.3	11.21	35.25	256.4	7.52	0	0		
6:06	180.8	10.37	36.26	206.	7.5	0	0		
6:07	188.4	11.4	37.27	265.6	7.49	0	0		
6:08	195.9	11.49	38.27	293.	7.49	0	0		
6:09	203.5	10.87	39.28	261.	7.48	0	0		
6:10	211.	11.23	40.29	265.6	7.47	0	0		
6:11	218.5	11.35	41.3	306.8	7.49	0	0		
6:12	226.1	11.2	42.3	297.6	7.5	0	0		
6:13	226.1	11.2	42.3	297.6	7.5	0	0	Start Mixing Tail Slurry 44 BBL	
6:13	232.3	13.71	43.31	352.6	7.47	0	0		
6:14	239.6	13.24	44.32	155.7	5.26	0	0		
6:15	239.6	13.24	44.32	155.7	5.26	0	0	DENSITY 14.2 MUD SCALE	
6:15	243.6	12.52	45.32	50.37	2.08	0	0		
6:16	244.6	14.73	46.33	64.1	2.4	0	0		
6:17	249.6	13.88	47.34	187.7	5.25	0	0		
6:18	255.8	14.95	48.34	283.9	6.46	0	0		
6:19	262.1	14.13	49.35	311.4	6.49	0	0		
6:20	268.8	14.02	50.36	375.5	7.19	0	0		
6:21	268.8	14.02	50.36	375.5	7.19	0	0	End Tail Slurry	
6:21	271.2	13.4	51.36	4.58	0.	0	0		
6:22	271.2	13.47	52.37	0.	0.	0	0		
6:23	271.2	13.47	52.37	0.	0.	0	0	START MUD DISPLACEMENT	
6:23	271.2	13.47	52.37	0.	0.	0	0	[CumVol]=271.3 bbl	
6:23	271.2	13.47	52.37	0.	0.	0	0	Reset Volume	
6:23	0.946	11.11	53.38	293.	7.41	0	0		
6:24	0.946	11.11	53.38	293.	7.41	0	0	DROP PLUG	
6:24	7.38	8.21	54.39	105.3	6.32	0	0		
6:25	13.54	8.2	55.39	45.79	4.34	0	0		
6:26	18.73	8.27	56.4	132.8	7.57	0	0		
6:27	26.29	14.33	57.41	247.3	7.52	0	0		
6:28	33.84	10.34	58.42	279.3	7.52	0	0		
6:29	41.92	24.35	59.42	384.6	9.27	0	0		
6:30	51.25	2.83	60.43	430.4	9.24	0	0		



Well		Field				Service Date		Customer		Job Number	
SWD #3								TEXACO EXPL & PROD INC		20163684	
Time	CumVol	Density	Elapsed Time	Pressure UI	TotFlowrate	Message					
24 hr clock	bbl	ppg	min	psi	bpm						
6:31	60.55	8.43	61.44	398.4	9.26	0	0				
6:32	69.85	7.85	62.44	320.5	9.22	0	0				
6:33	79.16	11.53	63.45	343.4	9.26	0	0				
6:34	88.45	5.81	64.46	370.9	9.24	0	0				
6:35	97.74	7.99	65.46	320.5	9.19	0	0				
6:36	107.	7.95	66.47	311.4	9.24	0	0				
6:37	116.3	7.99	67.48	398.4	9.24	0	0				
6:38	125.7	7.83	68.49	398.4	9.22	0	0				
6:39	125.7	7.83	68.49	398.4	9.22	0	0	GOOD RETURNS			
6:39	135.	7.92	69.49	412.1	9.19	0	0				
6:40	144.3	7.95	70.5	320.5	9.22	0	0				
6:41	153.6	7.74	71.51	370.9	9.1	0	0				
6:42	162.8	7.97	72.51	370.9	9.26	0	0				
6:43	172.1	8.08	73.52	494.5	9.22	0	0				
6:44	181.4	8.	74.53	407.5	9.22	0	0				
6:45	190.7	8.12	75.53	439.6	9.22	0	0				
6:46	200.	4.8	76.54	476.2	9.22	0	0				
6:47	209.3	5.59	77.55	654.8	9.22	0	0				
6:48	218.6	3.74	78.56	696.	9.24	0	0				
6:49	226.7	2.52	79.56	480.8	7.55	0	0				
6:50	233.4	2.52	80.57	517.4	5.	0	0	BUMP PLUG TO 1251			
6:51	236.5	2.52	81.58	1245	0.	0	0	JOB COMPLEAT			
6:52	236.5	2.52	82.59	-45.79	0.	0	0				
6:53	236.5	2.52	82.59	-45.79	0.	0	0				

Post Job Summary									
Average Pump Rates, bpm					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2		
7	0	0	9.2	248	230	30	0		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density		
1256	1	250	0	0		0 bbl	0 lb/gal		
Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	<input type="checkbox"/> Cement Circulated to Surface? Volume 0 bbl <input type="checkbox"/> Washed Thru Perfs To 0 ft					
0 %	248 bbl	230 bbl	68 °F						
Customer or Authorized Representative			Dowell Supervisor			<input type="checkbox"/> Circulation Lost <input checked="" type="checkbox"/> Job Completed			
Bruce Luecking			Jake Foreman						



Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

June 29, 2000

CONFIDENTIAL

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
Mr. Gil Hunt  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: **Daily Drilling Reports**  
**Utah Federal "D" 34-80**  
**Utah Federal "D" 34-82**  
**Texaco's SWD#3**

Dear Mr. Hunt:

The enclosed daily drilling reports were not submitted previously due to a communication error. Utah Federal "D" 34-80 and Utah Federal "D" 34-82 have been completed and sundries are being sent under a separate cover letter. Texaco's SWD # 3 is still in the drilling stage and weekly drilling reports will be submitted each Monday.

Please accept this letter as Texaco Exploration and Production Incorporated's written request for ~~confidential~~ treatment of all information contained in and pertaining to these drilling wells, if said information is eligible for such consideration.

Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Richard Carr  
Farmington Operating Unit  
Texaco Exploration and Production, Inc.

RNC/rnc

RECEIVED

JUL 05 2000

DIVISION OF  
OIL, GAS AND MINING



Field: BUZZARDS BENCH	Activity: MOVE IN PATTERSON RIG 12	Spud Date: 05/30/2000	CD: 1
County: EMERY State: UT	TD: 306 Footage: 306	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 0	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 0 Class: Dev	Supervisor: J. D. DEROUEN	
GWl: 0 Well Type: DISPOSA	KB: 6,272 BOP Days:	Phone: (435) 748-2884	
Lithology: / /	GL: 6254 IDC\$/Ft: \$602.05	Contractor: PATTERSON RIG	Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

**LAST SURVEY**

Measured Depth: 5,244  
 True Vertical Depth: 0.00  
 Inclination: 2.00  
 Azimuth: 0.00  
 North/South Coordinate: 0.00  
 East/West Coordinate: 0.00  
 Vertical Section: 0.00  
 Dog Leg: 0.00  
 Survey Tool: TOTCO

**WORK**

0.00 SFM Patterson Safety topics: Rigging up and caution with over head electric lines.  
 0.00 5/16 thru 5/30/00. Build location and road. Drill and set 50' of conductor pipe. Move in Bill Jr air rig and drill 315' of 17 1/2" hole. Ran 306' of 13 3/8", 48#, H-40, LT&C casing w/ guide shoe, insert float, and 3 cent, set at 305' ground level. Dowell cement w/390 sx "G" W/2 % S1 and .25#/sx D29. Circulated 33 bbls good cement to reserve. Maximum pump pressure 120 psi. Bump pressure 320 psi. Continue to build location and road. Dig and set 6 x 6 cellar. It was necessary to drill blast holes and to use dynamite in order to dig cellar.  
 12.00 RUP Move in Patterson Rig # 12. 50 % of rig on location. Will start rig up 5-31-00.  
 12.00 **TOTAL HOURS**

**CONFIDENTIAL**

**MUD DATA**

Mud Wt: 0 Oil: 0  
 Viscosity: 0 MBT: 0  
 PV: 0 pH: 0  
 YP: 0 Pm: 0  
 10 Sec Gel: 0 Pf: 0  
 10 Min Gel: 0 Chl: 0  
 WL: 0 CA: 0  
 HTHP: 0 Ex Lime: 0  
 FC: 0 Elec Stab: 0  
 Solids: 0 Temp: 0  
 Daily Cost \$0 Cum: \$0

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$9738	\$184227	\$193965
Compl:	\$0	\$0	\$0
Total:	\$9738	\$184227	\$193965
Daily:	\$9738	\$184227	\$193965

**MUD MATERIAL**
**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	0
PUMP #	0	0	0	0	AV (DC):	0
PUMP #	0	0	0	0	AV (DP):	0

**SLOW PUMP RATES**

PUMP #1:	0	@	0
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWD

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0						
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E	2	WT	HR

**REMARKS**

Salary-\$9000,Talon Res.-\$5059,Comnet Cell.-\$165,Red Man-\$6440,Bill Jr-\$16230,Nielson Const.-\$59354,Nielson Const.-\$1069,Dowell-\$5122,ABB  
 Vetco-\$3780,Gemaco-\$805,Gardiner Roustabouts-\$438,Emery Telecom-\$100,Bob's Equipment-\$714,Richardson Trucking-\$1914,Rentals-\$600.3  
 D Drilling-\$13456,Rocket Trucking-\$944,D&D Equipment-\$140,Hall Trucking-\$410,Wilson Supply-\$329.Jones Trk-\$1000, Patterson-\$65000,L&S



Field: BUZZARDS BENCH	Activity: R/U PATTERSON RIG # 12	Spud Date: 05/30/2000	CD: 1
County: EMERY	State: UT	TD: 306	Footage: 0
OU: FARMINGTON	ATD: 7,765	Hours: 0	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 0	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days:
Lithology: / /	GL: 6254	IDC\$/Ft: \$620.21	Supervisor: J. D. DEROUEN
			Phone: (435) 748-2884
			Contractor: PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

**LAST SURVEY**

Measured Depth: 5,244  
 True Vertical Depth: 0.00  
 Inclination: 2.00  
 Azimuth: 0.00  
 North/South Coordinate: 0.00  
 East/West Coordinate: 0.00  
 Vertical Section: 0.00  
 Dog Leg: 0.00  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING ON MOVING IN & RIGGING UP DRILLING RIG.  
 12.00 FINISHED MOVING IN PATTERSON RIG # 12. STARTED RIGGING UP. INSTALLED 13 5/8" 3M BOP, STACKED SUB-BASE & ASSEMBLE DERRICK. MOVED RAT HOLE.  
 12.00 **TOTAL HOURS**

**CONFIDENTIAL**

**MUD DATA**

Mud Wt: 0	Oil: 0
Viscosity: 0	MBT: 0
PV: 0	pH: 0
YP: 0	Pm: 0
10 Sec Gel: 0	Pf: 0
10 Min Gel: 0	Chl: 0
WL: 0	CA: 0
HTHP: 0	Ex Lime: 0
FC: 0	Elec Stab: 0
Solids: 0	Temp: 0
Daily Cost \$0	Cum: \$0

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$9738	\$189783	\$199521
Compl:	\$0	\$0	\$0
Total:	\$9738	\$189783	\$199521
Daily:	\$0	\$5556	\$5556

**MUD MATERIAL**
**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	
PUMP #	0	0	0	0	AV (DC):	0
PUMP #	0	0	0	0	AV (DP):	0

**SLOW PUMP RATES**

PUMP #1:	0	@	0
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWD

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0						
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E	2	WT	HR

**REMARKS**

Salaries \$ 1,000 - Rentals \$ 280 - Fuel \$ 4,276 ....



Field: BUZZARDS BENCH	Activity: R/U PATTERSON RIG 12	Spud Date: 05/30/2000	CD: 1
County: EMERY	State: UT	TD: 306	Footage: 0
OU: FARMINGTON	ATD: 7,765	Hours: 0	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 306	Class: Dev	Estimate No 400522
GW: 0	Well Type: DISPOSA	KB: 6,272	BOP Days:
Lithology: / /	GL: 6254	IDC\$/Ft: \$627.31	Supervisor: J. D. DEROUEN
			Phone: (435) 748-2884
			Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING ON WORKING WITH FORKLIFT & ELECTRICAL CORDS.
24.00	RUP	FINISHED SPOTTING PATTERSON RIG # 12. ( RAMPED DRAWWORKS , PINNED DERRICK , SPOTTED MUD PITS ,MUD PUMPS ,GENERATOR HOUSE, ACCUMULATOR , WATER TANK , DIESEL TANK , STRUNG DRILL LINE & RISED DERRICK.) RIGGING UP RIG. ( INSTALLED STAIRS , WATER LINES , AIR LINES , FUEL LINES & ELECTRIC CABLES.)
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	0	Oil:	0
Viscosity:	0	MBT:	0
PV:	0	pH:	0
YP:	0	Pm:	0
10 Sec Gel:	0	Pf:	0
10 Min Gel:	0	Chl:	0
WL:	0	CA:	0
HTHP:	0	Ex Lime:	0
FC:	0	Elec Stab:	0
Solids:	0	Temp:	0
Daily Cost	\$0	Cum:	\$0

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$9738	\$191958	\$201696
Compl:	\$0	\$0	\$0
Total:	\$9738	\$191958	\$201696
Daily:	\$0	\$2175	\$2175

MUD MATERIAL	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	0	0	0	0	AV (DC):	0	PSI Drop:	0
PUMP #	0	0	0	0	AV (DP):	0	HP/IN2:	0
							PUMP #1:	0 @ 0
							PUMP #2:	0 @ 0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E
																		2	WT
																			HR

REMARKS	
Salaries \$ 1,000 - Rentals \$ 688 - Weatherford ( Expendable parts & 3rd party trucking ) \$ 367 - Neilson ( Dust control water ) \$ 120 ...	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> RIGGING UP PATTERSON # 12	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 2
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 306	<b>Footage:</b> 0
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 0	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 306	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWI:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 0
<b>Lithology:</b> / /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$663.37	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

**LAST SURVEY**

Measured Depth: 5,244  
 True Vertical Depth: 0.00  
 Inclination: 2.00  
 Azimuth: 0.00  
 North/South Coordinate: 0.00  
 East/West Coordinate: 0.00  
 Vertical Section: 0.00  
 Dog Leg: 0.00  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON MAKING UP KELLY & WORKING WITH WELDER. NOTIFIED MIKE KAMINSKI WITH THE BLM & DENNIS AMES WITH THE UTAH OIL & GAS OF BOP TESTING.  
 24.00 RUP RIGGING UP PATTERSON RIG #12. ( INSTALLED ROTARY TORQUE SENSOR , FABRICATED STEEL LINE TO CHOKE MANIFOLD AND RIG REPAIRS ) TESTED 13 5/8" 3M WEATHERFORD BOP ( RSRdA ) TO 3,000 PSI & 1,500 PSI.  
 24.00 REPAIRED LEAKS ON FLANGES OF KILL LINE & CHOKE LINE VALVES, HYDRILL & RAM FLANGE AND 4" CHOKE LINE & MANIFOLD. TESTED CASING WITH 1,000 PSI FOR 30 MINS.  
 TOTAL HOURS

**CONFIDENTIAL**

**MUD DATA**

Mud Wt: 0 Oil: 0  
 Viscosity: 0 MBT: 0  
 PV: 0 pH: 0  
 YP: 0 Pm: 0  
 10 Sec Gel: 0 Pf: 0  
 10 Min Gel: 0 Chl: 0  
 WL: 0 CA: 0  
 HTHP: 0 Ex Lime: 0  
 FC: 0 Elec Stab: 0  
 Solids: 0 Temp: 0  
 Daily Cost \$0 Cum: \$0

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$9738	\$202992	\$212730
Compl:	\$0	\$0	\$0
Total:	\$9738	\$202992	\$212730
Daily:	\$0	\$11034	\$11034

**MUD MATERIAL**
**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	
PUMP #	0	0	0	0	AV (DC):	0
PUMP #	0	0	0	0	AV (DP):	0

**SLOW PUMP RATES**

PUMP #1:	0	@	0
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E	2	WT	HR

**REMARKS**

Daily Cost: Patterson ( nipple up & test ) \$ 5,100 - Salaries \$ 1,000 - Rentals \$ 688 - Rollins ( Trenching machine ) \$ 670 - Gardiner ( Dress ground around well head ) \$ 78 - ( Installed 13 5/8" Well head ) \$ 1,413 - Stricker's ( Cleaned & Drift 9 5/8" Casing ) \$ 1,370 - Double Jack Testing ( Tested BOPE ) \$ 1,385 ....



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> MIXING MUD	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 2
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 306	<b>Footage:</b> 0
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 0	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 306	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 1
<b>Lithology:</b> / /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$723.23	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON WORKING WITH WELDERS & PPE.
14.00	RUP	FINISHED RIG REPAIRS. ( REPLACED ROTARY CHAIN GUARD )
1.00	SFM	RIG INSPECTION & SAFETY MEETING PRIOR TO SPUD.
3.00	PUB	PICKED UP BHA # 1 & TAGGED CEMENT @ 264 FT.
1.50	DRC	PICKED UP KELLY & DRILLED CEMENT TO FLOAT COLLAR @ 284 FT.
1.50	DRC	DRILLED FLOAT COLLAR, CEMENT & SHOE WITH WATER.
3.00	CCM	CLOSED IN STEEL TANKS & MIXING MUD AS PER MUD PROGRAM.
24.00		TOTAL HOURS

**CONFIDENTIAL**

MUD DATA			
Mud Wt:	8.3	Oil:	0
Viscosity:	29	MBT:	0
PV:	0	pH:	0
YP:	0	Pm:	0
10 Sec Gel:	0	Pf:	0
10 Min Gel:	0	Chl:	0
WL:	0	CA:	0
HTHP:	0	Ex Lime:	0
FC:	0	Elec Stab:	0
Solids:	0	Temp:	0
Daily Cost	\$0	Cum:	\$0

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCT	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$221308	\$231046
Compl:	\$0	\$0	\$0
Total:	\$9738	\$221308	\$231046
Daily:	\$0	\$18316	\$18316

MUD MATERIAL	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	60	300	AV (DC):	0	PSI Drop:	0
PUMP #	5.5	16	0	0	AV (DP):	0	HP/IN2:	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E

REMARKS	
Daily Cost: Patterson \$ 1,134 - Smith ( Bit # 1 ) \$ 13,750 - Salaries \$ 500 - Rentals \$ 688 - Neilson ( water ) \$ 1,074 - Contingency \$ 500 ....	
Daywork started @ 20:00 Hours on 6/3/00 .	



Field: BUZZARDS BENCH	Activity: DRILLING 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 3
County: EMERY	State: UT	TD: 590	Footage: 284
OU: FARMINGTON	ATD: 7,765	Hours: 19.5	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 590	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 2
Lithology: SHALE / SAND /	GL: 6254	IDC\$/Ft: \$394.85	Supervisor: J. D. DEROUEN
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON MIXING MUD.
3.00	CCM	FINISHED MIXING MUD AS PER MUD PROGRAM.
10.50	DRL	DRILLED 12 1/4" HOLE FROM 306 FT TO 470 FT FOR 164 FT @ 15.6 FT/HR.
1.50	RRP	WELDED EXTENTION ON PITCHER NIPPLE TO PREVENT OVERFLOW OF MUD.
9.00	DRL	DRILLED 12 1/4" HOLE FROM 470 FT TO 590 FT FOR 120 FT @ 13.4 FT/HR
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	8.7	Oil:	0
Viscosity:	41	MBT:	0
PV:	15	pH:	9.5
YP:	10	Pm:	0
10 Sec Gel:	11	Pf:	0.1
10 Min Gel:	3	Chl:	500
WL:	10	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	2	Temp:	0
Daily Cost	\$904	Cum:	\$904

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$232963	\$242701
Compl:	\$0	\$0	\$0
Total:	\$9738	\$232963	\$242701
Daily:	\$0	\$11655	\$11655

MUD MATERIAL	
GEL = 48 , POLY PLUS = 4 , POLY PAC = 3	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	55	255	AV (DC):	148	PSI Drop:	0
PUMP #	5.5	14	53	224	AV (DP):	98	HP/IN2:	0
							PUMP #1:	0 @ 0
							PUMP #2:	0 @ 0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E
																		2	WT
																			HR

REMARKS	
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Daily Cost : Patterson \$ 6,800 - Salaries \$ 500 - Pipe Rental \$ 251 - Rentals \$ 1,163 - Swaco ( R/U Charge ) \$ 475 - M-I Mud \$ 904 - Caloway ( Safety Man ) \$ 600 - Contingency \$ 962 ....





Field: BUZZARDS BENCH	Activity: DRILL 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 4
County: EMERY State: UT	TD: 1000 Footage: 410	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 23.5	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 1,000 Class: Dev	Supervisor: J. D. DEROUEN	
GW: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 3	Phone: (435) 748-2884	
Lithology: SHALE / SAND /	GL: 6254 IDC\$/Ft: \$247.82	Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON FORKLIFT SAFETY & TEAMWORK.
14.00	DRL	DRILLED 12 1/4" HOLE FROM 590 FT TO 837 FT FOR 247 FT @ 17.6 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 788 FT. 1 DEGREE
9.50	DRL	DRILLED 12 1/4" HOLE FROM 837 FT TO 1,000 FT FOR 163 FT @ 17.2 FT/HR.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	8.8	Oil:	0
Viscosity:	42	MBT:	0
PV:	13	pH:	8.5
YP:	10	Pm:	0
10 Sec Gel:	1	Pf:	0
10 Min Gel:	4	Chl:	500
WL:	9.8	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	3	Temp:	0
Daily Cost	\$1342	Cum:	\$2246

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$9738	\$247817	\$257555
Compl:	\$0	\$0	\$0
Total:	\$9738	\$247817	\$257555
Daily:	\$0	\$14854	\$14854

MUD MATERIAL	
GEL = 72 , POLY PLUS = 2 , POLY PAC = 4 , HIBTROL = 3	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	58	269	600	AV (DC): 0	PSI Drop: 0	
PUMP #	5.5	14	56	237		AV (DP): 98	HP/IN2: 0	

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0			
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E

REMARKS	
Daily Cost; Bunning Transfer Co ( Delivered 9 5/8" Casing ) \$ 3,132 - Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 600 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 1,342 - Contingency \$ 1,066 ....	



Field: BUZZARDS BENCH	Activity: DRILLING 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 5
County: EMERY	State: UT	TD: 1359	Footage: 359
OU: FARMINGTON	ATD: 7,765	Hours: 23	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 1,359	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 4
Lithology: SHALE / SAND /	GL: 6254	IDC\$/Ft: \$193.53	Supervisor: J. D. DEROUEN
		Phone: (435) 748-2884	
		Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON WORKING AROUND ROTARY & PINCH POINTS.
5.00	DRL	DRILLED 12 1/4" HOLE FROM 1,000 FT TO 1,111 FT FOR 111 FT @ 22 FT/HR.
0.50	RSV	RIG SERVICE
18.00	DRL	DRILLED 12 1/4" HOLE FROM 1,111 FT TO 1,359 FT FOR 248 FT @ 13.8 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 1,310 FT. 1 DEGREE
24.00		TOTAL HOURS

**CONFIDENTIAL**

MUD DATA			
Mud Wt:	8.9	Oil:	0
Viscosity:	42	MBT:	0
PV:	15	pH:	9
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	8	Chl:	400
WL:	9.8	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	4	Temp:	0
Daily Cost	\$889	Cum:	\$3135

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$9738	\$263007	\$272745
Compl:	\$0	\$0	\$0
Total:	\$9738	\$263007	\$272745
Daily:	\$0	\$15190	\$15190

MUD MATERIAL	
GEL = 35 , POLY PLUS = 2 , POLY PAC = 4 , CAUSTIC = 2	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI:
PUMP #	5.5	16	58	269	800
PUMP #	5.5	14	58	246	143

SLOW PUMP RATES			
PUMP #1:	0	@	0
PUMP #2:	0	@	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWD

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0			
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 - ( Callaway ) \$ 600 - Pipe Rental \$ 251 - Rentals \$ 1,163 - M-I mud \$ 889 - Neilson ( water ) \$ 197 - Pierce Oil ( Deisel ) \$ 3,770 - Contingency \$ 1,020 ....	



Field: BUZZARDS BENCH	Activity: DRILLING 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 6
County: EMERY	State: UT	TD: 1536	Footage: 177
OU: FARMINGTON	ATD: 7,765	Hours: 12.5	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 1,536	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 5
Lithology: SHALE / SAND /	GL: 6254	IDC\$/Ft: \$178.56	Supervisor: J. D. DEROUEN
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPIC ON LOCKOUT TAG OUT & HIGH PRESSURE LINES.
9.50	DRL	DRILLED 12 1/4" HOLE FROM 1,359 FT TO 1,482 FT FOR 123 FT @ 12.9 FT/HR.
0.50	RSV	RIG SERVICE.
3.00	POH	TRIP OUT OF TIGHT HOLE FROM 1,440 FT TO 1,250 FT. FREE AFTER TO 975 FT.
2.00	RRP	REPLACED SWIVEL PACKING.
1.50	POH	TEST SWIVEL PACKING, BIT PLUGGED. TRIPPED OUT OF HOLE.
2.00	TTM	UNPLUGGED 4 FT OF CLAY FROM BOTTOM DRILL COLLAR.
1.00	RIH	TRIPPED IN HOLE TO 1,262 FT.
1.50	WAR	WASHED & REAMED FROM 1,262 FT TO BOTTOM @ 1,482 FT. 220 FT.
3.00	DRL	DRILLED 12 1/4" HOLE FROM 1,482 FT TO 1,536 FT FOR 54 FT @ 18 FT/HR.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	8.8	Oil:	0
Viscosity:	43	MBT:	0
PV:	16	pH:	9
YP:	12	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	8	Chl:	400
WL:	9.8	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	4.5	Temp:	0
Daily Cost	\$924	Cum:	\$4059

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$274269	\$284007
Compl:	\$0	\$0	\$0
Total:	\$9738	\$274269	\$284007
Daily:	\$0	\$11262	\$11262

MUD MATERIAL	
GEL = 60 , POLY PLUS = 1 , POLY PAC = 4 , CAUSTIC = 2	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	58	269	AV (DC): 143	PSI Drop: 0	PUMP #1:	100 @ 35
PUMP #	5.5	14	58	246	AV (DP): 95	HP/IN2: 0	PUMP #2:	0 @ 0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E
																		2	WT
																			HR

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 600 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 924 - Contingency \$ 1,024 ...	



Field: BUZZARDS BENCH	Activity: WASHING BACK TO BOTTOM	Spud Date: 05/30/2000	CD: 7
County: EMERY State: UT	TD: 1790 Footage: 254	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 16.5	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 1,790 Class: Dev	Supervisor: J.D.DEROUEN	
GWl: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 6	Phone: (435) 748-2884	
Lithology: SHALE / SAND /	GL: 6254 IDC\$/Ft: \$161.19	Contractor: PATTERSON RIG	Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
0	0.00	0.00	0.00
0	0.00	0.00	0.00
0	0.00	0.00	0.00
300	1.00	0.00	0.13
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00

**LAST SURVEY**

Measured Depth: 1,310  
 True Vertical Depth: 0.00  
 Inclination: 1.00  
 Azimuth: 0.00  
 North/South Coordinate: 0.00  
 East/West Coordinate: 0.00  
 Vertical Section: 0.00  
 Dog Leg: 0.00  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON HIGH PSI LINES & WIRELINE SURVEYS.  
 2.50 DRL DRILLED 12 1/4" HOLE FROM 1,536 FT TO 1,575 FT FOR 39 FT @ 15.6 FT/HR.  
 0.50 RSV RIG SERVICE  
 15.00 DRL DRILLED 12 1/4" HOLE FROM 1,575 FT TO 1,790 FT FOR 215 FT @ 14.4 FT/HR.  
 4.50 POH WIPER TRIP. BACKREAMED, PUMPED OUT 12 JOINTS TO 1,369 FT & PULLED 3 STANDS FREE UP TO 1,087 FT.  
 1.50 RIH BROKE CIRCULATION, TRIPPED IN HOLE TO 1,369 FT & WASHING FROM 1,369 FT TO 1,500 FT.  
 24.00 TOTAL HOURS

**CONFIDENTIAL**

**MUD DATA**

Mud Wt:	9	Oil:	0
Viscosity:	41	MBT:	0
PV:	15	pH:	9
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	8	Chl:	400
WL:	9.8	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0
Daily Cost	\$478	Cum:	\$4537

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCT	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$9738	\$288531	\$298269
Compl:	\$0	\$0	\$0
Total:	\$9738	\$288531	\$298269
Daily:	\$0	\$14262	\$14262

**MUD MATERIAL**

GEL = 20, POLY PLUS = 1, POLY PAC = 2, CAUSTIC = 3

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	900
PUMP #	5.5	16	57	264	AV (DC):	142
PUMP #	5.5	14	57	242	AV (DP):	95

**SLOW PUMP RATES**

PUMP #1:	100	@	35
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
1	1006	300	95	S	75	90	65	150

DESCRIPTION: B, BS, 3 - 8" DC, XO, 6 - 6 1/4" DC, XO, 24 - HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
2	1	F20T	12.25	517X	1482	1790	308	19.5	15.8	48	100	28	28	28	0	0						
1	1	F20T	12.25	517X	300	1482	1182	75.5	15.7	48	100	28	28	28	1	1		A	E	I	NO	PJ

**REMARKS**

Daily Cost: Mountain West ( Pit Liner ) \$ 3,187 - Patterson \$ 6,800 - Salaries ( TX ) \$ 500 - ( Callaway ) \$ 600 - HWDP \$ 251 - Rentals \$ 1,163 - M-I  
 Mud \$ 478 - Nielson ( Water ) \$ 303 - Contingency \$ 980 .....



Field: BUZZARDS BENCH	Activity: DRILLING 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 8
County: EMERY	State: UT	TD: 2045	Footage: 255
OU: FARMINGTON	ATD: 7,765	Hours: 22	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 2,045	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 7
Lithology: SHALE / SAND /	GL: 6254	IDC\$/Ft: \$148.70	Supervisor: J.D.DEROUEN
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
0	0.00	0.00	0.00
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05

LAST SURVEY	
Measured Depth:	2,301
True Vertical Depth:	2,300.76
Inclination:	0.75
Azimuth:	0.00
North/South Coordinate:	32.14
East/West Coordinate:	0.00
Vertical Section:	32.14
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPIC ON WEARING PPE & WIRING ALL SHACKLES.
1.00	WAR	FINISHED WASHING & REAMING TO BOTTOM.
2.50	DRL	DRILLED 12 1/4" HOLE FROM 1,790 FT TO 1,820 FT FOR 30 FT @ 12 FT/HR.
0.50	RSV	RIG SERVICE
2.50	DRL	DRILLED 12 1/4" HOLE FROM 1,820 FT TO 1,852 FT FOR 32 FT @ 12.8 FT/ HR.
0.50	SVY	WIRELINE SURVEY @ 1,807 FT, 1/2 DEGREE
8.00	DRL	DRILLED 12 1/4" HOLE FROM 1,852 FT TO 1,943 FT FOR 91 FT @ 11.4 FT/ HR.
1.00	POH	WIPER TRIP , 4 STDS , DRAGGED 25 - 60M OVER FOR FIRST 60 FT THEN OK.
8.00	DRL	DRILLED 12 1/4" HOLE FROM 1,943 FT TO 2,045 FT FOR 102 FT @ 12.7 FT/ HR.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.1	Oil:	0
Viscosity:	40	MBT:	0
PV:	15	pH:	9
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	6	Chl:	400
WL:	9.2	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5.5	Temp:	0
Daily Cost	\$532	Cum:	\$5069

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$304092	\$313830
Compl:	\$0	\$0	\$0
Total:	\$9738	\$304092	\$313830
Daily:	\$0	\$15561	\$15561

MUD MATERIAL	
GEL = 20 , POLY PLUS = 2 , POLY PAC = 2 , CAUSTIC = 4	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI: 1000
PUMP #	5.5	16	57	265	AV (DC): 142
PUMP #	5.5	14	57	242	AV (DP): 95

PSI Drop: 0	HP/IN2: 0
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BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
1	1006	300	160	S	90	95	85	150

DESCRIPTION: B , BS , 3 - 8" DC , XO , 6 - 6 1/4" DC , XO , 24 - HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	0	0			
1	1	F20T	12.25	517X	300	1482	1182	75.5	15.7	48	100	28	28	28	1	1		A	E

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 600 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 532 - Pierce Oil ( 3,494 gals Diesel ) \$ 3,045 - Wilson Supplies \$ 390 - Contingency \$ 1,380 .....	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 12 1/4" HOLE	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 9
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 2314	<b>Footage:</b> 269
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 22.5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 2,314	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWI:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 8
<b>Lithology:</b> SHALE / SAND /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$136.57	<b>Phone:</b> (435) 748-2884
		<b>Contractor:</b> PATTERSON RIG	<b>Daywork</b>

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
0	0.00	0.00	0.00
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05

LAST SURVEY	
Measured Depth:	2,301
True Vertical Depth:	2,300.76
Inclination:	0.75
Azimuth:	0.00
North/South Coordinate:	32.14
East/West Coordinate:	0.00
Vertical Section:	32.14
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING ON USING CELLAR JET & HAND TOOLS.
4.00	DRL	DRILLED 12 1/4" HOLE FROM 2,045 FT TO 2,098 FT FOR 53 FT @ 13.3 FT/HR.
0.50	RSV	RIG SERVICE.
8.50	DRL	DRILLED 12 1/4" HOLE FROM 2,098 FT TO 2,190 FT FOR 92 FT @ 10.8 FT/HR.
1.00	POH	5 STAND WIPER TRIP. TIGHT FOR THE FIRST 120 FT & FREE AFTER.
10.00	DRL	DRILLED 12 1/4" HOLE FROM 2,190 FT TO 2,314 FT FOR 124 FT @ 12.4 FT/HR.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.1	Oil:	0
Viscosity:	42	MBT:	0
PV:	16	pH:	9.5
YP:	12	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	6	Chl:	400
WL:	9.5	CA:	80
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5.5	Temp:	0
Daily Cost	\$917	Cum:	\$5986

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$9738	\$316030	\$325768
Compl:	\$0	\$0	\$0
Total:	\$9738	\$316030	\$325768
Daily:	\$0	\$11938	\$11938

MUD MATERIAL	
GEL = 55 , POLY PLUS = 2 , POLY PAC = 2 , SAPP = 2 , SAWDUST = 50	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:	1000		
PUMP #	5.5	16	57	265	AV (DC):	142	PSI Drop:	0
PUMP #	5.5	14	57	242	AV (DP):	95	HP/IN2:	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
1	1006	300	160	S	90	95	85	150

DESCRIPTION: B , BS , 3 - 8" DC , XO , 6 - 6 1/4" DC , XO , 24 - HWDP

BITS																		
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	0	0		
1	1	F20T	12.25	517X	300	1482	1182	75.5	15.7	48	100	28	28	28	1	1	A	E

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 840 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 917 - Western Chemicals ( Corrosion protection ) \$ 420 - Contingency \$ 1,047 ...	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> TRIPPING OUT OF HOLE	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 10
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 2525	<b>Footage:</b> 211
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 20.5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 2,525	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWI:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 9
<b>Lithology:</b> SHALE / SAND /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$129.53	<b>Phone:</b> (435) 748-2884
		<b>Contractor:</b> PATTERSON RIG	<b>Daywork</b>

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
0	0.00	0.00	0.00
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05

**LAST SURVEY**

Measured Depth: 2,301  
 True Vertical Depth: 2,300.76  
 Inclination: 0.75  
 Azimuth: 0.00  
 North/South Coordinate: 32.14  
 East/West Coordinate: 0.00  
 Vertical Section: 32.14  
 Dog Leg: 0.05  
 Survey Tool: TOTCO

**WORK**

0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON SURVEY MACHINE & GENERAL SAFETY.
2.50	DRL	DRILLED 12 1/4" HOLE FROM 2,314 FT TO 2,346 FT FOR 32 FT @ 12.8 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 2,301 FT . 3/4 DEGREES
2.50	DRL	DRILLED 12 1/4" HOLE FROM 2,346 FT TO 2,376 FT FOR 30 FT @ 12 FT/HR.
0.50	RSV	RIG SERVICE.
15.50	DRL	DRILLED 12 1/4" HOLE FROM 2,376 FT TO 2,525 FT FOR 149 FT @ 9.6 FT/HR.
2.50	POH	TRIPPING OUT OF HOLE.
24.00		<b>TOTAL HOURS</b>

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**MUD DATA**

Mud Wt:	9.3	Oil:	0
Viscosity:	44	MBT:	0
PV:	16	pH:	9
YP:	12	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	6	Chl:	400
WL:	9.4	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$676	Cum:	\$6662

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$9738	\$327060	\$336798
Compl:	\$0	\$0	\$0
Total:	\$9738	\$327060	\$336798
Daily:	\$0	\$11030	\$11030

**MUD MATERIAL**

GEL = 20 , POLY PLUS = 2 , POLY PAC = 3 , CAUSTIC = 3

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1000
PUMP #	5.5	16	57	265	AV (DC):	142
PUMP #	5.5	14	57	242	AV (DP):	95

**SLOW PUMP RATES**

PUMP #1:	100	@	34
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
1	1006	300	160	S	90	95	85	150

DESCRIPTION: B , BS , 3 - 8" DC , XO , 6 - 6 1/4" DC , XO , 24 - HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	0	0						
1	1	F20T	12.25	517X	300	1482	1182	75.5	15.7	48	100	28	28	28	1	1		A	E	I	NO	PJ

**REMARKS**

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 676 - Contingency \$ 1,000 .....



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 12 1/4" HOLE	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 11
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 2685	<b>Footage:</b> 160
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 17	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 2,685	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWI:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 10
<b>Lithology:</b> SHALE / SAND /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$127.68	<b>Phone:</b> (435) 748-2884
		<b>Contractor:</b> PATTERSON RIG	<b>Daywork</b>

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
0	0.00	0.00	0.00
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05

LAST SURVEY	
Measured Depth:	2,301
True Vertical Depth:	2,300.76
Inclination:	0.75
Azimuth:	0.00
North/South Coordinate:	32.14
East/West Coordinate:	0.00
Vertical Section:	32.14
Dog Leg:	0.05
Survey Tool:	TOTCO

MUD DATA			
Mud Wt:	9.3	Oil:	0
Viscosity:	46	MBT:	0
PV:	22	pH:	9
YP:	16	Pm:	0
10 Sec Gel:	3	Pf:	0.1
10 Min Gel:	12	Chl:	300
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$730	Cum:	\$7392

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$342810	\$352548
Compl:	\$0	\$0	\$0
Total:	\$9738	\$342810	\$352548
Daily:	\$0	\$15750	\$15750

MUD MATERIAL	
POLY PLUS = 2 , POLY PAC = 3 , CAUSTIC = 3 , LIME = 1 , SAW DUST = 40 , DESCO = 1 , NUT PLUG = 5	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI:
PUMP #	5.5	16	57	265	1000
PUMP #	5.5	14	57	242	
					AV (DC): 142
					AV (DP): 95
					PSI Drop: 0
					HP/IN2: 0

SLOW PUMP RATES			
PUMP #1:	100	@	34
PUMP #2:	0	@	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
2	977	2525	177	S	90	90	80	150

DESCRIPTION: BIT, BS, 3 - 8" DC'S , XO , 5 - 6" DC'S , XO, 24 - HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
3	1	F20T	12.25	517X	2525	2685	160	17	9.41	48	100	28	28	28	0	0			
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	2	2	NO	A	E

REMARKS	
Daily Cost : Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 730 - Nielson ( Water ) \$ 1,295 - Pierce Oil ( Diesel ) \$ 3,371 - Contingency \$ 1,000 .....	

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Field: BUZZARDS BENCH	Activity: DRILLING 12 1/4" HOLE	Spud Date: 05/30/2000	CD: 12
County: EMERY State: UT	TD: 2930 Footage: 245	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 22.5	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 2,930 Class: Dev	Supervisor: J.D.DEROUEN	
GWI: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 11	Phone: (435) 748-2884	
Lithology: SHALE / SAND /	GL: 6254 IDC\$/Ft: \$121.10	Contractor: PATTERSON RIG	Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

**LAST SURVEY**

Measured Depth: 2,796  
 True Vertical Depth: 2,795.70  
 Inclination: 1.00  
 Azimuth: 0.00  
 North/South Coordinate: 39.70  
 East/West Coordinate: 0.00  
 Vertical Section: 39.70  
 Dog Leg: 0.05  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON SLICES IN ELECTRICAL CABLES, BARE WIRES & WHERE YOU PLACE YOUR HANDS.  
 8.00 DRL DRILLED 12 1/4" HOLE FROM 2,685 FT TO 2,780 FT FOR 95 FT @ 11.9 FT/HR.  
 0.50 RSV RIG SERVICE  
 5.50 DRL DRILLED 12 1/4" HOLE FROM 2,780 FT TO 2,842 FT FOR 62 FT @ 11.3 FT/HR.  
 1.00 SVY WIRELINE SURVEY @ 2796 FT . 1 DEGREES ( CLUTCH ON WIRELINE UNIT WENT OUT, WORKED ON SAME )  
 9.00 DRL DRILLED 12 1/4" HOLE FROM 2,842 FT TO 2,930 FT FOR 88 FT @ 9.8 FT/HR.  
 24.00 **TOTAL HOURS**

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**MUD DATA**

Mud Wt: 9.6	Oil: 0
Viscosity: 40	MBT: 0
PV: 16	pH: 8.5
YP: 8	Pm: 0
10 Sec Gel: 2	Pf: 0.1
10 Min Gel: 5	Chl: 300
WL: 8.8	CA: 40
HTHP: 0	Ex Lime: 0
FC: 2	Elec Stab: 0
Solids: 9	Temp: 0
Daily Cost \$758	Cum: \$8150

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	0	3000	0
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$9738	\$354827	\$364565
Compl:	\$0	\$0	\$0
Total:	\$9738	\$354827	\$364565
Daily:	\$0	\$12017	\$12017

**MUD MATERIAL**

POLY PLUS = 2 , POLY PAC = 2 , CAUSTIC = 3 , DESCO = 1 , NUT PLUG = 20 ( SWACO WORKING ON CENTRIFUGE )

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1100
PUMP #	5.5	16	57	265	AV (DC):	142
PUMP #	5.5	14	57	242	AV (DP):	95

**SLOW PUMP RATES**

PUMP #1:	100	@	34
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
2	977	2525	177	S	90	90	80	150

DESCRIPTION: BIT, BS, 3 - 8" DC'S , XO , 5 - 6" DC'S , XO, 24 - HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
3	1	F20T	12.25	517X	2525	2930	405	39.5	10.3	48	100	28	28	28	0	0						
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	2	2	NO	A	E	I	NO	PR

**REMARKS**

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 251 - Rentals \$ 1,163 - M-I Mud \$ 758 - Pason ( Mud Loggers ) \$ 905 - Contingency \$ 1,000 .....BGG = 20 - 40 Units , Conn. Gas = 10 Units over BGG.



Field: BUZZARDS BENCH	Activity: CEMENT 9 5/8"	Spud Date: 05/30/2000	CD: 13
County: EMERY	State: UT	TD: 3014	Footage: 84
OU: FARMINGTON	ATD: 7,765	Hours: 7	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 2,930	Class: Dev	Estimate No 400522
GW: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 12
Lithology: SHALE / SAND /	GL: 6254	IDC\$/Ft: \$123.29	Supervisor: LUECKING 435-749-2135
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

**LAST SURVEY**

Measured Depth: 2,796  
 True Vertical Depth: 2,795.70  
 Inclination: 1.00  
 Azimuth: 0.00  
 North/South Coordinate: 39.70  
 East/West Coordinate: 0.00  
 Vertical Section: 39.70  
 Dog Leg: 0.05  
 Survey Tool: TOTCO

**WORK**

0.00	SFM	PATTERSON SAFETY TOPICS: WORKING WITH NEW HANDS, TRIPPING, RUNNING CASING, AND CEMENT. NO ACCIDENTS OR NEAR MISSES REPORTED.
7.00	DRL	DRILL FROM 2930' TO 3014'. ROP 12 FPH. BW 48. RPM 100. GPM 507.
1.00	CCM	CIRCULATE PRIOR TO WIPER TRIP.
2.50	POH	WIPE HOLE TO CASING SHOE.
1.00	CCM	CIRCULATE AND CONDITION TO RUN 9 5/8" CASING.
2.00	POH	TRIP OUT OF HOLE TO RUN 9 5/8" CASING. STRAP OUT. STRAP DEPTH 3017'.
0.50	SFM	HELD SAFETY MEETING WITH PATTERSON, WESTATES, AND CALLOWAY CONCERNING RIGGING UP AND DOWN CASERS AND LAY DOWN MACHINE AND RUNNING CASING.
1.00	CSG	RIG UP LAY DOWN MACHINE AND CASERS.
3.00	RRP	UNABLE TO PULL ROTARY BUSHING. WORK ON AND PULL SAME.
3.50	CSG	RUN 9 5/8" CASING. RAN 66 JOINTS OF 9 5/8", 36#, K-55, LTC CASING WITH GUIDE SHOE, FLOAT COLLAR, AND 10 CENTRALIZERS. TOTAL OF 3017' SET AT 3014' KB.
1.50	CCM	HOOK UP DOWELL CEMENT HEAD AND CIRCULATE. RIG DOWN CASERS AND LAY DOWN MACHINE PRIOR TO RIG UP DOWELL. MOVE IN AND RIG UP DOWELL.
1.00	CMT	HELD SAFETY MEETING WITH DOWELL AND PATTERSON. START CEMENTING 9 5/8" CASING.
24.00		<b>TOTAL HOURS</b>

**MUD DATA**

Mud Wt:	9.5	Oil:	0
Viscosity:	48	MBT:	0
PV:	18	pH:	9
YP:	14	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	6	Chl:	300
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	8	Temp:	0
Daily Cost	\$0	Cum:	\$8150

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$9738	\$371603	\$381341
Compl:	\$0	\$0	\$0
Total:	\$9738	\$371603	\$381341
Daily:	\$0	\$16776	\$16776

**MUD MATERIAL**

GEL-5, POLY PAC-2, CAUSTIC-4, NUT PLUG-20.

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1200
PUMP #	5.5	16	57	265	AV (DC):	113.52
PUMP #	5.5	14	57	242	AV (DP):	87.83
					PSI Drop:	801.04
					HP/IN2:	3.01

**SLOW PUMP RATES**

PUMP #1:	100	@	34
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
2	977	2525	184	S	90	90	80	150

DESCRIPTION: BIT, BS, 3 - 8" DC'S , XO , 5 - 6" DC'S , XO, 24 - HWD

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
3	1	F20T	12.25	517X	2525	3014	489	46.5	10.5	48	100	28	28	28	3	3	WT	A	E	I	NO	TD
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	2	2	NO	A	E	I	NO	PR

**TEXACO**  
Global Drilling

**SWD # 3**  
Report: 16

06/15/2000

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**DRILLING REPORT**  
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**REMARKS**

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, HWDP-\$251, RENTAL-\$1163, MI-\$629, WESTATES CASING-\$6422, CONTINGENCY-\$1000.

**CASING REPORT**

Casing String: INTRMED			Run Date: 06/15/2000		Shoe Depth: 3014		Float Collar Depth 2966		DV Tool Depths: 0		0
Section	Prop. Size	Actual Size	Grade	Weight	Connection		Joints	Length	Prop. Depth	Actual Depth	
1	9.625	9.625	K-55	36	LTC		66	3017	3000	3014	

Field:	BUZZARDS BENCH	Activity:	NIPPLE DOWN BOP'S	Spud Date:	05/30/2000	CD:	14
County:	EMERY	State:	UT	TD:	3014	Footage:	0
OU:	FARMINGTON	ATD:	7,765	Hours:	0	Estimate No	400522
Objective:	NAVAJO / WINGATE	PBTD:	2,930	Class:	Dev	Supervisor:	LUECKING 435-749-2135
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	13
Lithology:	SHALE / SAND /	GL:	6254	IDC\$/Ft:	\$130.42	Phone:	(435) 748-2884
				Contractor:	PATTERSON RIG	Daywork	

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

LAST SURVEY	
Measured Depth:	2,796
True Vertical Depth:	2,795.70
Inclination:	1.00
Azimuth:	0.00
North/South Coordinate:	39.70
East/West Coordinate:	0.00
Vertical Section:	39.70
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: SAFE ATTITUDE AT WORK AND GENERAL SAFETY.
1.00	CMT	CEMENT 9 5/8" CASING AS FOLLOWS. DOWELL CEMENTED WITH 30 BBL WATER AHEAD, 315 SX ( 204 BBL ) HI LIFT W/12% D20, 1% D79, .5% D112, .2% D46, 2% S1, AND .25# SX D29 FOR LEAD AND 155 SX ( 44 BBL ) RFC W. .25 # SX D29. 50% EXCESS. GOOD CIRCULATION THROUGHOUT JOB. DID NOT CIRCULATE CEMENT TO SURFACE.
6.50	WOC	WAITING ON CEMENT. CALLED OUT AND WAIT ON SCHLUMBERGER WIRELINE TRUCK TO RUN CEMENT TEMPERATURE LOG.
3.00	WLF	RUN CEMENT TEMPERATURE LOG. TOOL NOT WORKING CORRECTLY. REPAIR SAME. TOP OF CEMENT 430' KB.
9.00	WOC	CALL OUT AND WAIT ON DOWELL TO DO TOP CEMENT JOB WITH 1" PIPE. PICK UP 1" PIPE. STOPPED AT 400'.
2.00	CRM	RIG UP DOWELL TO DO TOP JOB. WHEN PRIMING THE PUMPS NOTICED WATER FROM RIG TANK CONTAMINATED WITH MUD FROM PREVIOUS CEMENT JOB (?), MOVED SUCTION HOSE TO OPPOSITE END OF TANK AND WATER WAS STILL CONTAMINATED. CALL OUT AND WAIT ON LOAD OF WATER.
1.50	CRM	DO CEMENT TOP JOB. PUMPED 30 BBLs "G" W/ 2% CC, 15.8 WT. CEMENT. CALCULATED VOLUME 25 BBLs. RETURNED 5 BBL TO RESERVE. TIGHTEN AND CHANGE UNIONS AT SWEDGE.
1.00	NBP	LAY DOWN 1" PIPE AND NIPPLE DOWN 13 5/8 3M BOP'S.
24.00	TOTAL HOURS	

MUD DATA			
Mud Wt:	9.4	Oil:	0
Viscosity:	44	MBT:	0
PV:	18	pH:	9
YP:	14	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	6	Chl:	300
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	8	Temp:	0
Daily Cost	\$0	Cum:	\$8150

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$9738	\$393074	\$402812
Compl:	\$0	\$0	\$0
Total:	\$9738	\$393074	\$402812
Daily:	\$0	\$21471	\$21471

MUD MATERIAL	

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:				
PUMP #	5.5	16	0	0	AV (DC):	0	PSI Drop:	0	PUMP #1:
PUMP #	5.5	14	0	0	AV (DP):	0	HP/IN2:	0	PUMP #2:

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
2	977	2525	184	S	90	90	80	150	

DESCRIPTION: BIT, BS, 3 - 8" DC'S , XO , 5 - 6" DC'S , XO, 24 - HWDP

BITS																						
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
3	1	F20T	12.25	517X	2525	3014	489	46.5	10.5	48	100	28	28	28	3	3	WT	A	E	I	NO	TD
2	1	F20T	12.25	517X	1482	2525	1043	84.5	12.3	48	100	28	28	28	2	2	NO	A	E	I	NO	PR

**TEXACO**  
Global Drilling

**SWD # 3**  
Report: 17

06/16/2000

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**DRILLING REPORT**  
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**REMARKS**

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$1163, DOWELL-\$6870, HWDP-\$251, GARDINERS-\$120, STACY HALL TRUCKING-\$908, GEMACO-\$805, WESTERN CHEMICAL-\$350, CONTINGENCY-\$1000, SCHLUMBERGER-\$1745, RED MAN-\$319,

CONFIDENTIAL



Field: BUZZARDS BENCH	Activity: NIPPLE UP BOP'S	Spud Date: 05/30/2000	CD: 15
County: EMERY State: UT	TD: 3014 Footage: 0	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 0	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 2,930 Class: Dev	Supervisor: LUECKING 435-749-2135	
GWl: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 14	Phone: (435) 748-2884	
Lithology: SHALE / SAND /	GL: 6254 IDC\$/Ft: \$137.59	Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

LAST SURVEY	
Measured Depth:	2,796
True Vertical Depth:	2,795.70
Inclination:	1.00
Azimuth:	0.00
North/South Coordinate:	39.70
East/West Coordinate:	0.00
Vertical Section:	39.70
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	SAFETY TOPICS: NIPPLE DOWN AND NIPPLE UP.
6.50	NBP	RIG UP DOUBLE JACK. PICK UP BOP. SET SLIPS AND CUT OFF. RIG DOWN DOUBLE JACK. NIPPLE DOWN AND SET OUT 13 5/8" BOP.
1.50	NMH	NIPPLE UP AND TEST "B" SECTION.
16.00	NBP	NIPPLE UP DSA AND 11" 5M BOP.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.4	Oil:	0
Viscosity:	44	MBT:	0
PV:	18	pH:	9
YP:	14	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	6	Chl:	300
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	8	Temp:	0
Daily Cost	\$0	Cum:	\$8150

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$58275	\$414688	\$472963
Compl:	\$0	\$0	\$0
Total:	\$58275	\$414688	\$472963
Daily:	\$48537	\$21614	\$70151

MUD MATERIAL	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	0	0	AV (DC):	0	PSI Drop:	0
PUMP #	5.5	14	0	0	AV (DP):	0	HP/IN2:	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
3	829	3014	0	SLICK	0	0	0	0

DESCRIPTION: BIT, BIT SUB, 3 6.250 DC, XO, 24 HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
4	2	X3A	8.750	117	3014	3014	0	0	0	0	0	12	12	12	0	0			
3	1	F20T	12.25	517X	2525	3014	489	46.5	10.5	48	100	28	28	28	3	3	WT	A	E

REMARKS	
PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, DOUBLE JACK-\$3490, RENTAL-\$739, DOWELL-\$1553, HWDP-\$251, CONTINGENCY-\$1000, ABB VETCO-\$5663, RED MAN SUPPLY-\$45191, NIELSON-\$1572, DAVID MORTON ELECTRIC-\$942, PASON-\$1810	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> TRIP IN TO DRILL CEMENT	<b>Spud Date:</b> 05/30/2000	<b>CD:</b> 16
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 3014	<b>Footage:</b> 0
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 0	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 2,930	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 1
<b>Lithology:</b> /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$141.31	<b>Phone:</b> (435) 748-2884
		<b>Contractor:</b> PATTERSON RIG	<b>Daywork</b>

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

**LAST SURVEY**

Measured Depth: 2,796  
 True Vertical Depth: 2,795.70  
 Inclination: 1.00  
 Azimuth: 0.00  
 North/South Coordinate: 39.70  
 East/West Coordinate: 0.00  
 Vertical Section: 39.70  
 Dog Leg: 0.05  
 Survey Tool: TOTCO

**WORK**

0.00	SFM	SAFETY TOPICS: NIPPLE UP AND TEST BOP'S. NO ACCIDENTS OR NEAR MISSES REPORTED.
5.50	NBP	NIPPLE UP 11" 5M BOP'S. HOOK UP LINES, FLOW LINE, AND FUNCTION TEST.
2.50	RRP	WORK ON ROTARY BUSHINGS PRIOR TO TEST BOP'S.
8.00	TBP	TEST BOP'S. TEST ANNULAR TO 1500 PSI. TEST RAMS, CHOKES, VALVES AND LINES TO 3000 PSI. TEST KELLY AND VALVES TO 3000 PSI.
0.50	PTC	TEST CASING TO 1500 PSI.
2.00	LDD	LAY DOWN 8" DC AND 2 6 1/4" DC.
2.00	RIH	MAKE UP BIT AND BIT SUB AND TRIP IN HOLE TO 2200'.
3.50	TTM	DISPLACING MUD DOWN FLOWLINE TO RESERVE. UNABLE TO CLOSE 8" VALVE ON FLOWLINE. PULLED FLOWLINE OFF AND CLEANED OUT SMALL AMOUNT OF CEMENT AND SHALE AROUND VALVE. INSTALL VALVE AND FLOWLINE AND CONTINUE TRIP IN HOLE.

24.00

**TOTAL HOURS**

**CONFIDENTIAL**

**MUD DATA**

Mud Wt:	9.2	Oil:	0
Viscosity:	43	MBT:	0
PV:	18	pH:	9
YP:	12	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	10	Chl:	300
WL:	7	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0
Daily Cost	\$0	Cum:	\$8150

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$58275	\$425912	\$484187
Compl:	\$0	\$0	\$0
Total:	\$58275	\$425912	\$484187
Daily:	\$0	\$11224	\$11224

**MUD MATERIAL**
**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	0
PUMP #	5.5	16	0	0	AV (DC):	0
PUMP #	5.5	14	0	0	AV (DP):	0
					PSI Drop:	0
					HP/IN2:	0

**SLOW PUMP RATES**

PUMP #1:	0	@	0
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
3	829	3014	0	SLICK	0	0	0	0

DESCRIPTION: BIT, BIT SUB, 3 6.250 DC, XO, 24 HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
4	2	X3A	8.750	117	3014	3014	0	0	0	0	0	12	12	12	0	0						
3	1	F20T	12.25	517X	2525	3014	489	46.5	10.5	48	100	28	28	28	3	3	WT	A	E	I	NO	TD

**REMARKS**

PATTERSON-\$3400, SALARY-\$500, CALLOWAY-\$640, PASON-\$405, HWDP-\$251, WYLDOMING TRUCKING-\$889, DINALAND TRUCKING-\$900, RENTAL-\$739, CONTINGENCY-\$1000, SPIDEL SALES-\$2500,





Field: BUZZARDS BENCH	Activity: DRILLING TO CORE POINT	Spud Date: 05/30/2000	CD: 17
County: EMERY	State: UT	TD: 3055	Footage: 41
OU: FARMINGTON	ATD: 7,765	Hours: 6	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 3,055	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 2
Lithology: SD /SH /	GL: 6254	IDC\$/Ft: \$146.96	Supervisor: LUECKING 435-749-2135
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

LAST SURVEY	
Measured Depth:	2,796
True Vertical Depth:	2,795.70
Inclination:	1.00
Azimuth:	0.00
North/South Coordinate:	39.70
East/West Coordinate:	0.00
Vertical Section:	39.70
Dog Leg:	0.05
Survey Tool:	TOTCO

MUD DATA			
Mud Wt:	9.1	Oil:	0
Viscosity:	44	MBT:	0
PV:	16	pH:	10
YP:	10	Pm:	0
10 Sec Gel:	3	Pf:	0.8
10 Min Gel:	12	Chl:	200
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0
Daily Cost	\$995	Cum:	\$9145

WORK			
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: PICKING UP CORE BARREL. BAD VISION DUE TO RAIN.	
2.50	DRC	DRILL CEMENT, FLOAT, AND SHOE FROM 2928' TO 3014'.	
0.50	RSV	DUMP AND CLEAN SAND TRAP AND SETTLING PIT.	
0.50	DRL	DRILL 8 3/4" HOLE FROM 3014' TO 3019'. CORE POINT.	
1.50	CCM	CIRCULATE AND CONDITION PRIOR TO TRIP FOR CORE BARREL.	
1.00	POH	TRIP OUT OF HOLE TO PICK UP CORE BARREL.	
2.00	COR	PICK UP CORE BARREL.	
2.50	RIH	TRIP IN HOLE WITH CORE BARREL. WASH BOTTOM GOOD. DROP BALL.	
4.50	COR	CORING FROM 3019' TO 3049'. BW 10. RPM 55. ROP 6.6 FPH.	
2.00	POH	TRIP OUT OF HOLE WITH CORE.	
2.00	COR	BREAK DOWN CORE BARREL. LAY DOWN INNER BARREL AND PULL CORE. PICK UP AND RE ASSEMBLE CORE BARREL. LAY DOWN CORING TOOLS. NO COAL RECOVERED IN CORE #1.	
1.00	RIH	MAKE UP BIT AND TRIP IN HOLE TO 3019'.	
3.00	RMM	REAM OUT CORE HOLE TO 3049'.	
1.00	DRL	DRILL 6" FROM 3049' TO 3055'. ( NEXT CORE POINT ) . BW 25-30. RPM 60. SPM 60. GPM 278.	
24.00		TOTAL HOURS	

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$448952	\$507227
Compl:	\$0	\$0	\$0
Total:	\$58275	\$448952	\$507227
Daily:	\$0	\$23040	\$23040

MUD MATERIAL	
POLY PAC-4, DESCO-3, BI CARB-15.	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI: 1000
PUMP #	5.5	16	60	278	AV (DC): 147.02
PUMP #	5.5	14	0	0	AV (DP): 115.17

SLOW PUMP RATES			
PUMP #1:	0	@	0
PUMP #2:	0	@	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
4	873	3019	4.5	CORE	75	75	75	0

DESCRIPTION: CORE BIT, STAB, CORE BBL, STAB, XO, JARS, XO, BS, 3 DC, XO, HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
5	3	BAKER	6.250	CORE	3019	3049	30	4.5	6.67	10	55	0	0	0	0	0			
6	2	XCA	8.750	117	3049	3055	6	1	6	25	55	12	12	12	0	0			

**TEXACO**  
Global Drilling

**SWD # 3**  
Report: 20

06/19/2000

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**REMARKS**

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, PASON-\$905, RENTAL-\$739, HWDP-\$251, TICORA ( CORE LAB )-\$5100, BAKER HUGHES ( CORE ) -\$4825, DOUBLE JACK ( BOP TEST ) -\$1085, CONTINGENCY-\$1000,GARDINER -\$200, MI-\$995. BG GAS 20-40. CONN. GAS-10 OVER BG.TRIP GAS-1524 UNITS AT 3049.

CONFIDENTIAL



Field: BUZZARDS BENCH	Activity: CHANGE ROTARY TABLE	Spud Date: 05/30/2000	CD: 18
County: EMERY State: UT	TD: 3083 Footage: 28	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 2.5	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 3,083 Class: Dev	Supervisor: LUECKING 435-749-2135	
GWI: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 3	Phone: (435) 748-2884	
Lithology: SD / COAL /	GL: 6254 IDC\$/Ft: \$149.31	Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

LAST SURVEY	
Measured Depth:	2,796
True Vertical Depth:	2,795.70
Inclination:	1.00
Azimuth:	0.00
North/South Coordinate:	39.70
East/West Coordinate:	0.00
Vertical Section:	39.70
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	1 FIRST AID INCIDENT REPORTED. DAYLIGHT DERRICK HAND HAD RIGHT HAND PINCHED BETWEEN BALES AND ELEVATORS.SAFETY TOPICS.HAND PLACEMENT, PINCH POINTS, USING LAY DOWN LINE.
1.00	CCM	CIRCULATE FOR CORE.
1.00	POH	TRIP OUT OF HOLE. BIT WAS WORE OUT DUE TO SAND AND WAS DETERMINED THAT CORE BIT WOULD NOT DRILL SANDS AND WOULD BE NECESSARY TO DRILL SOME MORE WITH TRI CONE.
5.00	RIH	PICK UP 517 BIT. TRIP IN HOLE AND WASH 43 ' TO BOTTOM. LAY DOWN 18 JOINTS DP AND PICK UP 18 JOINTS HWDP.
1.00	DRL	DRILL FROM 3055' TO 3064'.
4.00	POH	ROUND TRIP FOR CORE BARREL.
1.50	COR	CORE FROM 3064' TO 3083'. LAST 4' OF CORE SAND.WILL LAY DOWN CORE AND DRILL 14' TO NEXT CORE POINT.
3.50	POH	TRIP OUT OF HOLE. LAY DOWN CORE AND CORE BARREL. RECOVERED 7' COAL IN CORE.
7.00	RRP	CHANGE OUT ROTARY TABLE.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA		
Mud Wt:	9	Oil: 0
Viscosity:	41	MBT: 0
PV:	12	pH: 10
YP:	10	Pm: 0
10 Sec Gel:	2	Pf: 0.8
10 Min Gel:	4	Chl: 200
WL:	8	CA: 0
HTHP:	0	Ex Lime: 0
FC:	2	Elec Stab: 0
Solids:	5	Temp: 0
Daily Cost	\$359	Cum: \$9504

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$460327	\$518602
Compl:	\$0	\$0	\$0
Total:	\$58275	\$460327	\$518602
Daily:	\$0	\$11375	\$11375

MUD MATERIAL	
GEL-11,POLY PAC-2,DECSO-1.	

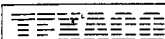
HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:	800		
PUMP #	5.5	16	62	288	AV (DC):	162.21	PSI Drop:	650.87
PUMP #	5.5	14	0	0	AV (DP):	119.31	HP/IN2:	2.24
PUMP #1:							150	@ 20
PUMP #2:							0	@ 0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
4	1377	3019	7	CORE	100	100	100	60

DESCRIPTION: CORE BIT,STAB,CORE BBL,STAB,XO,JARS,XO,BS,3 DC,XO,HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
9	4	GT30	8.75	517	3083	3083	0	0	0	0	0	14	14	14	0	0			
7	4	GT30	8.750	517	3055	3064	9	0	0	40	60	14	14	14	1	1	N	A	E

REMARKS	
PATTERSON-\$4812, SALARY-\$500, CALLOWAY-\$640, SPIDEL SALES-\$150, RENTAL-\$739,HWDP-\$439,TICORA-\$1700, PASON-\$905, NIELSON-\$131, CONTINGENCY-\$1000,MI-\$359. BG GAS-30 TO 40. CONN. 30 OVER BG. TRIP 175 AT 3055.	



SWD # 3

Global Drilling

Report: 22

06/21/2000

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DRILLING REPORT  
Proprietary Information of Texaco Inc.

Field:	BUZZARDS BENCH	Activity:	WIRELINE SURVEY	Spud Date:	05/30/2000	CD:	19
County:	EMERY	State:	UT	TD:	3364	Footage:	281
API No:				43-015-30303-00-00			
OU:	FARMINGTON	ATD:	7,765	Hours:	14	Estimate No	400522
Objective:	NAVAJO / WINGATE	PBTD:	3,364	Class:	Dev	Supervisor:	LUECKING 435-749-2135
Well Type:	DISPOSA	KB:	6,272	BOP Days:	4	Phone:	(435) 748-2884
Lithology:	SH / SLTST /	GL:	6254	IDC\$/Ft:	\$142.33	Contractor:	PATTERSON RIG Daywork

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
300	1.00	0.00	0.33
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05

## LAST SURVEY

Measured Depth: 2,796  
True Vertical Depth: 2,795.70  
Inclination: 1.00  
Azimuth: 0.00  
North/South Coordinate: 39.70  
East/West Coordinate: 0.00  
Vertical Section: 39.70  
Dog Leg: 0.05  
Survey Tool: TOTCO

## WORK

0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: SNUB LINES, TONGS BACK BITING.
4.00	RRP	CHANGE OUT ROTARY TABLE.
1.50	RIH	TRIP IN HOLE TO 3064'.
1.00	RMM	REAM OUT CORE HOLE FROM 3064' TO 3083'.
1.00	DRL	DRILL FROM 3083' TO 3098'. ROP 15 FPH. BW 45. RPM 60.
1.00	CCM	CIRCULATE SAMPLES FOR POSSIBLE CORE.
2.00	DRL	DRILL FROM 3098' TO 3132'. ROP 17 FPH. BW 45. RPM 80.
0.50	RSV	SERVICE RIG.
1.00	DRL	DRILL FROM 3132' TO 3149'. ROP 17 FPH. BW 45. RPM 80.
1.00	CCM	LOST CIRCULATION AT 3149'. MIX MUD AND LCM. LOST 150 BBLS.
10.00	DRL	DRILL FROM 3149' TO 3364'. ROP 21.5 FPH. BW 45. RPM 80. GPM 365. DRILLING WITH FULL RETURNS. BY PASSED SHAKER FOR 4 HOURS. CONTINUE TO MIX 4 SX LCM PER HOUR. CURRENTLY MIXING 2 SX LCM PER HOUR.

23.00 TOTAL HOURS

CONFIDENTIAL

## MUD DATA

Mud Wt:	8.9	Oil:	0
Viscosity:	41	MBT:	0
PV:	12	pH:	9.5
YP:	9	Pm:	0.1
10 Sec Gel:	1	Pf:	0.2
10 Min Gel:	3	Chl:	200
WL:	9.4	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	4	Temp:	0

Daily Cost \$883 Cum: \$10387

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drlg:	\$58275	\$478793	\$537068
Compl:	\$0	\$0	\$0
Total:	\$58275	\$478793	\$537068
Daily:	\$0	\$18466	\$18466

## MUD MATERIAL

GEL-23, POLY PAC-4, DESCO-1, CEDAR FIBER-15, MULTI SEAL-15

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1100
PUMP #1	5.5	16	46	212	AV (DC):	238.47
PUMP #2	5.5	14	34	153	AV (DP):	151.21
					PSI Drop:	1011.8
					HP/IN2:	3.9

## SLOW PUMP RATES

PUMP #1:	150	@	33
PUMP #2:	0	@	0

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1377	3083	22	SLICK	95	95	95	250

DESCRIPTION: BIT,BIT SUB,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
9	4	GT20	8.75	517	3083	3364	281	14	20.1	45	80	14	14	14	0	0						
7	4	GT20	8.750	517	3055	3064	9	1	9	40	60	14	14	14	1	1	N	A	E	I	N	CP

## REMARKS

PATTERSON-\$5660, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, TICORA-\$1700, PASON-\$905, CONTINGENCY-\$1000, HUGHES-\$6000, MI-\$883, BG-20-30 UNITS, CONN.-20 UNITS OVER BG, TRIP-285 UNITS AT 3084'.



SWD # 3

Report: 23

06/22/2000

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DRILLING REPORT  
Proprietary Information of Texaco Inc.

Field:	BUZZARDS BENCH	Activity:	DRILLING	Spud Date:	05/30/2000	CD:	20		
County:	EMERY	State:	UT	TD:	3775	Footage:	411	API No:	43-015-30303-00-00
OU:	FARMINGTON	ATD:	7,765	Hours:	21.5	Estimate No	400522		
Objective:	NAVAJO / WINGATE	PBTD:	3,775	Class:	Dev	Supervisor:	LUECKING 435-749-2135		
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	5	Phone:	(435) 748-2884
Lithology:	SH /SLTST /	GL:	6254	IDC\$/Ft:	\$131.71	Contractor:	PATTERSON RIG	Daywork	

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
788	1.00	0.00	0.00
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05
3,315	0.50	0.00	0.10

## LAST SURVEY

Measured Depth:	3,315
True Vertical Depth:	3,314.65
Inclination:	0.50
Azimuth:	0.00
North/South Coordinate:	46.49
East/West Coordinate:	0.00
Vertical Section:	46.49
Dog Leg:	0.10
Survey Tool:	TOTCO

## WORK

0.00	SFM	SAFETY TOPICS: MIXING CHEMICALS. KEEP STAIRS CLEAR.NO ACCIDENTS OR NEAR MISSES REPORTED.
1.00	DRL	DRILL FROM 3364' TO 3395. ROP 30 FPH. BW 45. RPM 80. GPM 365.
1.00	WAR	WORK TIGHT HOLE ON CONNECTION AT 3395'. BLEW NAIL AND WORKED PIPE FREE WITH BIT 3360'. WORK PIPE UNTIL NO DRAG.
3.50	DRL	DRILL FROM 3395' TO 3486'. ROP 26 FPH. BW 45. RPM 80. GPM 365.
0.50	RSV	SERVICE RIG.
1.00	DRL	DRILL FROM 3486' TO 3517'. ROP 31 FPH. BW 45. RPM 80. GPM 365.
1.00	RRP	WORK ON AND REMOVE ROTARY TORQUE WHEEL. TORQUE INSTALLED INCORRECTLY AND NOT WORKING RIGHT CAUSING WHEEL TO LOCK UP AND GET VERY HOT.
16.00	DRL	DRILL FROM 3517' TO 3775'.ROP 16.1 FPH. BW 45. RPM 80. GPM 275/365. PSI 1300/800 UNABLE TO RUN BOTH PUMPS ON HOLE. SECOND PUMP ENGINE KEEPS SHUTTING DOWN. WITH #1 PUMP ON HOLE 800 PSI AND 278 GPM. ROP FROM 20-25 FPH TO 12-15 FPH. PUMP HAS BEEN DOWN PAST 12 HOURS.

24.00

## TOTAL HOURS

CONFIDENTIAL

## MUD DATA

Mud Wt:	9.1	Oil:	0
Viscosity:	42	MBT:	0
PV:	16	pH:	8.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0
10 Min Gel:	6	Chl:	200
WL:	7.8	CA:	0
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0

Daily Cost	\$1634	Cum:	\$12021
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## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drlg:	\$58275	\$497221	\$555496
Compl:	\$0	\$0	\$0
Total:	\$58275	\$497221	\$555496
Daily:	\$0	\$18428	\$18428

## MUD MATERIAL

GEL-95, POLY PLUS-1, POLY PAC-5, CAUSTIC-4, DESCO-3, SAW DUST-15, CEDAR FIBER-15, MULTI SEAL-15.

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	
PUMP #1	5.5	16	60	278	AV (DC):	0
PUMP #2	5.5	14	0	0	AV (DP):	0

## SLOW PUMP RATES

PUMP #1:	150	@	30
PUMP #2:	0	@	0

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1377	3083	43.5	SLICK	104	110	95	0

DESCRIPTION: BIT,BIT SUB,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
9	4	GT20	8.75	517	3083	3775	692	35.5	19.5	45	80	14	14	14	0	0						
7	4	GT20	8.750	517	3055	3064	9	1	9	40	60	14	14	14	1	1	N	A	E	I	N	CP

## REMARKS

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, CONTINGENCY-\$1000, PASON-\$905,TICORA-\$5239,ROCKET TRUCKING-\$532,MI-\$1634,BG-60-85 UNITS, CONN-20 UNITS OVER BG. SHOW 3100-3103 1005 UNITS.



Field: BUZZARDS BENCH	Activity: DRILLING	Spud Date: 05/30/2000	CD: 21
County: EMERY	State: UT	TD: 4005	Footage: 230
OU: FARMINGTON	ATD: 7,765	Hours: 14.5	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 4,005	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 6
Lithology: SD	/SLTST /	GL: 6254	IDC\$/Ft: \$130.91
		Supervisor: LUECKING 435-749-2135	Phone: (435) 748-2884
		Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
1,310	1.00	0.00	0.00
1,807	0.50	0.00	0.10
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05
3,315	0.50	0.00	0.10
3,812	0.25	0.00	0.05

LAST SURVEY	
Measured Depth:	3,812
True Vertical Depth:	3,811.64
Inclination:	0.25
Azimuth:	0.00
North/South Coordinate:	49.74
East/West Coordinate:	0.00
Vertical Section:	49.74
Dog Leg:	0.05
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS REPORTED. 1 NEAR MISS. DERRICK HAND WAS ON TOP OF SWIVEL WHILE LATCHING ONTO KELLY AND NOT TIED OFF. SAFETY TOPICS. TRIPPING, WEARING BELT HARNESS AND BELTS. TIE OFF.
4.50	DRL	DRILL FROM 3775' TO 3857'. ROP 18.2 FPH. BW 45. RPM 90. 337 GPM. 1300 PSI. NO FILL OR DRAG ON CONNECTIONS.
1.00	SVY	SURVEY AT 3812'. 1/4 DEGREE.
3.00	DRL	DRILL FROM 3857' TO 3918'. ROP 20.3 FPH. BW 45. RPM 90. GPM 337. PSI 1300. NO FILL OR DRAG ON CONNECTIONS.
2.00	POH	#2 PUMP ENGINE OVER HEATING AND SHUTTING DOWN. TRIPPED OUT OF HOLE TO PUT LARGER NOZZLES IN BIT.
2.50	RRP	WORK ON ROTARY CHAIN GUARD TO KEEP CHAIN FROM RUBBING.
1.50	RIH	CHANGE BIT AND TRIP IN HOLE TO SHOE. BIT #4 GRADE 4 AND 6 ON CUTTING STRUCTURE.
1.00	RRP	CIRCULATE AT SHOE TO CHECK PUMP RPM'S AND PRESSURES. CHANGE BALES
1.50	RIH	TRIP IN HOLE. WASH 105' TO BOTTOM. NO FILL.
7.00	DRL	DRILL FROM 3918' TO 4005'. ROP 12.4 FPH. BW 48. RPM 60-75. GPM 386. PSI 1200. NO FILL OR DRAG ON CONNECTIONS.
24.00		TOTAL HOURS

MUD DATA			
Mud Wt:	9.1	Oil:	0
Viscosity:	46	MBT:	0
PV:	16	pH:	9
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.15
10 Min Gel:	7	Chl:	200
WL:	7.6	CA:	0
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0
Daily Cost	\$1336	Cum:	\$13357

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$524299	\$582574
Compl:	\$0	\$0	\$0
Total:	\$58275	\$524299	\$582574
Daily:	\$0	\$27078	\$27078

MUD MATERIAL	
GEL-20,POLY PLUS-1, POLY PAC-6, CAUSTIC-6, SAW DUST-14, CEDAR FIBER-17, MULTI SEAL-17, DESCO-1.	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI: 1200
PUMP #	5.5	16	45	208	AV (DC): 252.19
PUMP #	5.5	14	42	178	AV (DP): 159.91

SLOW PUMP RATES			
PUMP #1:	100	@	33
PUMP #2:	80	@	24

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1377	3083	58	SLICK	110	112	106	0

DESCRIPTION: BIT,BIT SUB,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
10	5	F3H	8.75	537X	3918	4005	87	7	12.4	45	70	18	18	18	0	0			
9	4	GT20	8.75	517	3083	3918	835	43	19.4	45	80	14	14	14	4	6	BT	HR	E
																		1	WT
																			RR

REMARKS	
PATTERSON-\$5600, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, GEMACO-\$170, BAKER INTEQ-\$5981, CONTINGENCY-\$1000,PIERCE OIL-\$3768,MI-\$1336, SMITH-\$6000. BG-15-20 UNITS. CONN-20-50 UNITS OVER BG. TRIP-0.	



Field: BUZZARDS BENCH	Activity: DRILLING	Spud Date: 05/30/2000	CD: 22
County: EMERY State: UT	TD: 4295	Footage: 290	API No: 43-015-30303-00-00
OU: FARMINGTON	ATD: 7,765	Hours: 23.5	Estimate No 400522
Objective: NAVAJO / WINGATE	PBTD: 4,295	Class: Dev	Supervisor: LUECKING 435-749-2135
GWI: 0 Well Type: DISPOSA	KB: 6,272	BOP Days: 7	Phone: (435) 748-2884
Lithology: SD /SLTST /CLST	GL: 6254	IDC\$/Ft: \$124.93	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05
3,315	0.50	0.00	0.10
3,812	0.25	0.00	0.05
4,306	4.00	0.00	0.76
4,367	3.75	0.00	0.41

LAST SURVEY	
Measured Depth:	4,367
True Vertical Depth:	4,366.07
Inclination:	3.75
Azimuth:	0.00
North/South Coordinate:	72.18
East/West Coordinate:	0.00
Vertical Section:	72.18
Dog Leg:	0.41
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS TIE OFF, USING CLIMBING BELT, FORKLIFT SAFETY.
3.00	DRL	DRILL FROM 4005' TO 4042'. ROP 12.3 FPH. BW 45-48. RPM 70-100. GPM 386. PSI 1100.
0.50	RSV	SERVICE RIG.
20.50	DRL	DRILL FROM 4042' TO 4295'. ROP 12.3 FPH. BW 45-48. RPM 70-100. GPM 386. PSI 1100. DRILLING SAND AND CLAY STRINGERS.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.2	Oil:	0
Viscosity:	46	MBT:	0
PV:	18	pH:	10
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.8
10 Min Gel:	8	Chl:	200
WL:	7.6	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5	Temp:	0
Daily Cost	\$1256	Cum:	\$14613

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$58275	\$536578	\$594853
Compl:	\$0	\$0	\$0
Total:	\$58275	\$536578	\$594853
Daily:	\$0	\$12279	\$12279

MUD MATERIAL	
GEL-22, POLY PLUS-1, POLY PLUS-6, CAUSTIC-6, SODA ASH-7, MULTI SEAL-2, NUT PLUG-10.	

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI: 1100
PUMP #	5.5	16	45	208	AV (DC): 252.19
PUMP #	5.5	14	42	178	AV (DP): 159.91

SLOW PUMP RATES			
PUMP #1:	100	@	32
PUMP #2:	50	@	23

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	96	SLICK	115	120	110	0

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
11	6	GT18	8.75	447	4381	4440	59	5	11.8	30	100	14	14	14	0	0			
10	5	F3H	8.75	537X	3918	4381	463	40.5	11.4	45	100	18	18	18	2	2	WT	A	E
																		I	NO
																			HP

REMARKS	
PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, CONTINGENCY-\$1000, MI-\$1256.BG-15 TO 20 UNITS. CONN-10 TO 20 UNITS OVER BG.	





Field: BUZZARDS BENCH	Activity: RIG REPAIRS	Spud Date: 05/30/2000	CD: 23
County: EMERY	State: UT	TD: 4381	Footage: 86
OU: FARMINGTON	ATD: 7,765	Hours: 10	API No: 43-015-30303-00-00
Objective: NAVAJO / WINGATE	PBTD: 4,381	Class: Dev	Estimate No 400522
GWI: 0	Well Type: DISPOSA	KB: 6,272	BOP Days: 8
Lithology: SHALE / /	GL: 6254	IDC\$/Ft: \$124.64	Supervisor: LUECKING 435-749-2135
		Phone: (435) 748-2884	Contractor: PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05
3,315	0.50	0.00	0.10
3,812	0.25	0.00	0.05
4,306	4.00	0.00	0.76
4,367	3.75	0.00	0.41

LAST SURVEY	
Measured Depth:	4,367
True Vertical Depth:	4,366.07
Inclination:	3.75
Azimuth:	0.00
North/South Coordinate:	72.18
East/West Coordinate:	0.00
Vertical Section:	72.18
Dog Leg:	0.41
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS:HOUSE CLEANING. SAFETY GLASSES.
6.00	DRL	DRILL FROM 4295' TO 4351'. ROP 9.3 FPH.LOW PENETRATION RATE DUE TO DRILLING WITH 1 PUMP WHILE REPAIRS WERE MADE.BW 45. RPM 100.
0.50	SVY	WIRELINE SURVEY AT 4306, 4 DEGREES.
4.00	DRL	DRILL FROM 4351' TO 4381'. ROP 7.5 FPH. BW 30-32. RPM 110. GPM 380. PSI 1200.
0.50	SVY	WIRELINE SURVEY AT 4367. 3 3/4 DEGREES.
3.00	POH	TRIPPED OUT OF HOLE FOR LONGER TOOTH BIT TO HELP DROP ANGLE.
10.00	RRP	CHANGE PUMP LINERS IN #1 PUMP TO 6". REPAIR AND INSTALL ROTARY TORQUE, CHANGE VIBRATOR HOSE IN MUD LINE.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.2	Oil:	0
Viscosity:	45	MBT:	0
PV:	18	pH:	9.5
YP:	12	Pm:	0
10 Sec Gel:	2	Pf:	0.6
10 Min Gel:	10	Chl:	200
WL:	7.4	CA:	20
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$1197	Cum:	\$15810

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$546061	\$604336
Compl:	\$0	\$0	\$0
Total:	\$58275	\$546061	\$604336
Daily:	\$0	\$9483	\$9483

MUD MATERIAL	
GEL-8, POLY PLUS-2, POLY PAC-6, CAUSTIC-5, SODA ASH-7, SAW DUST-10, CEDAR FIBER-5, NUT PLUG-1.	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	5.5	16	45	208	AV (DC): 252.19	PSI Drop: 1228.9	PUMP #1:	100 @ 32
PUMP #	5.5	14	42	178	AV (DP): 159.91	HP/IN2: 4.49	PUMP #2:	50 @ 23

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
5	1374	3083	96	SLICK	115	120	110	0	

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
11	6	GT18	8.75	447	4381	4440	59	5	11.8	30	100	14	14	14	0	0			
10	5	F3H	8.75	537X	3918	4381	463	40.5	11.4	45	100	18	18	18	2	2	WT	A	E
																		I	NO
																			HP

**REMARKS**

PATTERSON-\$3967, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, NIELSON-\$96, PASON-\$905, CONTINGENCY-\$1000, MI-\$1197.BG-20-40 UNITS. CONN-20-30 UNITS OVER BG.



Field: BUZZARDS BENCH	Activity: WIRELINE SURVEY	Spud Date: 05/30/2000	CD: 24
County: EMERY State: UT	TD: 4440 Footage: 59	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 5	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 4,440 Class: Dev	Supervisor: LUECKING 435-749-2135	
GWI: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 9	Phone: (435) 748-2884	
Lithology: SHALE / SLST / SD	GL: 6254 IDC\$/Ft: \$126.04	Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
2,301	0.75	0.00	0.05
2,796	1.00	0.00	0.05
3,315	0.50	0.00	0.10
3,812	0.25	0.00	0.05
4,306	4.00	0.00	0.76
4,367	3.75	0.00	0.41

LAST SURVEY	
Measured Depth:	4,367
True Vertical Depth:	4,366.07
Inclination:	3.75
Azimuth:	0.00
North/South Coordinate:	72.18
East/West Coordinate:	0.00
Vertical Section:	72.18
Dog Leg:	0.41
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: HOUSEKEEPING, KEEP WALK WAYS FREE OF TRIP HAZARDS.
11.00	RRP	RIG REPAIRS. REFAB. ROTARY CHAIN GUARD. INSTALL TORQUE WHEEL.CHANGE OUT VIBRATER HOSE IN MUD LINE.
2.00	RSV	CUT DRILLING LINE.
2.00	RIH	TRIP IN HOLE TO SHOE.
1.50	RRP	CHECK PUMPS AT SHOE. WORK ON # 1 PUMP.
2.00	RIH	TRIP IN HOLE AND WASH 60 ' TO BOTTOM. NO FILL.
5.00	DRL	DRILL FROM 4381' TO 4440'. ROP 11.8 FPH. BW 30. RPM 80-100. GPM 305. PSI 1100.
0.50	SVY	WIRELINE SURVEY AT 4425'.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.2	Oil:	0
Viscosity:	42	MBT:	0
PV:	16	pH:	9.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.6
10 Min Gel:	5	Chl:	200
WL:	7.8	CA:	20
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$0	Cum:	\$15810

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$559598	\$617873
Compl:	\$0	\$0	\$0
Total:	\$58275	\$559598	\$617873
Daily:	\$0	\$13537	\$13537

MUD MATERIAL	

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:				
PUMP #	6	16	54	305	AV (DC): 199.27	PSI Drop: 780.58			
PUMP #	5.5	14	0	0	AV (DP): 126.36	HP/IN2: 3.26	PUMP #1:	250 @	25
							PUMP #2:	0 @	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	96	SLICK	115	120	110	0

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
11	6	GT18	8.75	447	4381	4440	59	5	11.8	30	100	14	14	14	0	0			
10	5	F3H	8.75	537X	3918	4381	463	40.5	11.4	45	100	18	18	18	2	2	WT	A	E
																		I	NO
																			HP

REMARKS	
PATTERSON-\$3314, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, HUGHES TOOL-\$6000, CONTINGENCY-\$1000. BG-40 TO 80 UNITS. CONN.-20 TO 30 UUNITS OVER BG, TRIP 250 UNITS.	



Field:	BUZZARDS BENCH	Activity:	DRILLING	Spud Date:	05/30/2000	CD:	26
County:	EMERY	State:	UT	TD:	5090	Footage:	364
OU:	FARMINGTON	ATD:	7,765	Hours:	23	API No:	43-015-30303-00-00
Objective:	NAVAJO / WINGATE	PBTD:	5,090	Class:	Dev	Estimate No:	400522
GWI:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	11
Lithology:	SHALE / SLST / SD	GL:	6254	IDC\$/Ft:	\$115.57	Supervisor:	J. D. DEROUEN
						Phone:	(435) 748-2884
						Contractor:	PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: PINCH POINTS, SMOKING AREAS, DERRICK CLIMBER.
3.00	DRL	DRILL FROM 4726' TO 4779'. ROP 17.6 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150.
0.50	RSV	SERVICE RIG.
2.00	DRL	DRILL FROM 4779' TO 4810. ROP 15.5 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150.
0.50	SVY	WIRELINE SURVEY AT 4810'. 2 1/2 DEGREES.
18.00	DRL	DRILL FROM 4810' TO 5090'. ROP 15.5 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150. SOME TIGHT CONNECTIONS AT 4950 TO 5000'.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.2	Oil:	0
Viscosity:	43	MBT:	0
PV:	26	pH:	9
YP:	18	Pm:	0
10 Sec Gel:	4	Pf:	0.6
10 Min Gel:	29	Chl:	200
WL:	8	CA:	180
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$4475	Cum:	\$21265

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCT	7	7	7765	0

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$58275	\$588250	\$646525
Compl:	\$0	\$0	\$0
Total:	\$58275	\$588250	\$646525
Daily:	\$0	\$15752	\$15752

MUD MATERIAL	
GEL-49, POLY PAC-6, CAUSTICI-4.	

HYDRAULICS						SLOW PUMP RATES		
	Liner Size	Stk Lgth	SPM	GPM	PSI:			
PUMP #	6	16	56	316	AV (DC):	206.45	PSI Drop:	1109.4
PUMP #	5.5	14	0	0	AV (DP):	130.91	HP/IN2:	3.53

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E

REMARKS	
PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, NIELSON-\$254, CONTINGENCY-\$1000,MI-\$4475.BG GAS-20/30 UNITS. CONN GAS-10 UNITS OVER BG.	



Field: BUZZARDS BENCH	Activity: DRILLING 8 1/2" HOLE	Spud Date: 05/30/2000	CD: 27
County: EMERY State: UT	TD: 5264 Footage: 174	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,765 Hours: 14	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 5,264 Class: Dev	Supervisor: J. D. DEROUEN	
GWI: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 12	Phone: (435) 748-2884	
Lithology: SHALE / SLST / SD	GL: 6254 IDC\$/Ft: \$116.43	Contractor: PATTERSON RIG	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
4,425	3.50	0.00	0.43
4,530	3.00	0.00	0.48
4,612	2.50	0.00	0.61
4,810	2.50	0.00	0.00
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.00

LAST SURVEY	
Measured Depth:	5,244
True Vertical Depth:	0.00
Inclination:	2.00
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON LOOSE CLOTHING & PPE.
2.00	DRL	DRILLED 8 1/2" HOLE FROM 5,090 FT TO 5,118 FT FOR 28 FT @ 14 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 5,075 FT @ 1.75 DEGREES.
12.00	DRL	DRILLED 8 1/2" HOLE FROM 5,118 FT TO 5,264 FT FOR 146 FT @ 12.2 FT/HR.
1.00	CCM	CIRCULATED, DROPPED SURVEY & SLUGGED PIPE FOR TRIP.
1.50	POH	PULLED UP INTO CASING.
1.00	RRP	REPLACED RADIATOR ON # 2 LIGHT PLANT.
2.50	POH	FINISHED TRIP OUT OF HOLE.
3.50	RIH	REPLACED BIT & TRIPPED IN HOLE.
24.00		TOTAL HOURS

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.2	Oil:	0
Viscosity:	40	MBT:	0
PV:	16	pH:	8.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.1
10 Min Gel:	10	Chl:	200
WL:	8	CA:	140
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	75
Daily Cost	\$1331	Cum:	\$22596

CASING					
String	Prop Size	Act Size	Prop Dep	Act Dep	
CONDUCT	20	20	40	50	
SURFACE	13.375	13.375	300	305	
INTRMED	9.625	9.625	3000	3014	
PRODUCTI	7	7	7765	0	

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$58275	\$612904	\$671179
Compl:	\$0	\$0	\$0
Total:	\$58275	\$612904	\$671179
Daily:	\$0	\$24654	\$24654

MUD MATERIAL	
GEL - 10, POLY PAC - 6, CAUSTIC - 4, DESCO - 3, SODA ASH - 15	

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:				
PUMP #	6	16	55	355	AV (DC):	230	PSI Drop:	0	
PUMP #	5.5	14	0	0	AV (DP):	154	HP/IN2:	0	

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	140	SLICK	124	135	118	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
12	7	GT20	8.75	517	5264	5264	0	0	0	0	0	0	0	0	0	0	0	0	0
11	6	GT18	8.75	447	4381	5264	883	63	14.0	38	100	14	14	14	3	8	BT	H	E

REMARKS	
Daily Cost: Patterson \$ 6,800 - HTC ( Bit # 6 ) \$ 6,000 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 739 - M-I Mud \$ 1,121 - Nielson ( Hauled Mud ) \$ 210 - Piece Oil Co ( Diesel ) \$ 5,973 - Pason \$ 905 - Nielson ( Water ) \$ 227 - Contingency \$ 1,100 ... BGG = 20 to 30 Units , Connection Gas 10 Units over BGG.	



SWD # 3

Report: 40

7/9/00

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RILLING REPORT

Proprietary Information of Texaco Inc.



Field: BUZZARDS BENCH Activity: RIGGING DOWN SCHLUMBERGER Spud Date: 5/30/00 CD: 37  
County: EMERY State: UT TD: 7593 Footage: 128 API No: 43-015-30303-00-00  
OU: FARMINGTON ATD: 7,615 Hours: 13 Estimate No 400522  
Objective: NAVAJO / WINGATE PBTD: 7,593 Class: Dev Supervisor: J. D. DEROUEN  
GWI: 0 Well Type: DISPOSA KB: 6,272 BOP Days: 22 Phone: (435) 748-2884  
Lithology: SDST /SH / GL: 6254 IDC\$/Ft: \$99.72 Contractor: PATTERSON RIG Daywork

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

## LAST SURVEY

Measured Depth: 7,425  
True Vertical Depth: 7,420.67  
Inclination: 2.25  
Azimuth: 0.00  
North/South Coordinate: 214.33  
East/West Coordinate: 0.00  
Vertical Section: 214.33  
Dog Leg: 0.22  
Survey Tool: TOTCO

## WORK

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON CHANGING TONG DIES & THINKING SAFE.  
9.50 DRL DRILLED 8 3/4" HOLE FROM 7,465 FT TO 7,562 FT FOR 97 FT @ 10.2 FT/HR.  
1.00 RSV RIG SERVICE & REPLACED SWIVEL PACKING.  
3.50 DRL DRILLED 8 3/4" HOLE FROM 7,562 FT TO 7,593 FT FOR 31 FT @ 8.9 FT/HR.  
2.00 CCM CIRCULATED HOLE CLEAN FOR LOGGING.  
3.00 POH TRIP OUT OF HOLE.  
5.00 WLO RIGGED UP SCHLUMBERGER. RAN PLATFORM EXPRESS FROM TD TO BOTTOM OF 9 5/8" CASING, GR TO SURFACE. LOGGERS DEPTH 7,613 FT. RIGGING DOWN SCHLUMBERGER.

24.00

## TOTAL HOURS

## MUD DATA

Mud Wt: 9.3 Oil: 0  
Viscosity: 44 MBT: 0  
PV: 15 pH: 8.5  
YP: 9 Pm: 0  
10 Sec Gel: 6 Pf: 0.1  
10 Min Gel: 17 Chl: 6300  
WL: 8 CA: 240  
HTHP: 0 Ex Lime: 0  
FC: 2 Elec Stab: 0  
Solids: 6.4 Temp: 0

Daily Cost \$351 Cum: \$32394

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drig:	\$58275	\$757200	\$815475
Compl:	\$0	\$0	\$0
Total:	\$58275	\$757200	\$815475
Daily:	\$0	\$11574	\$11574

## MUD MATERIAL

BAR - 18 , GEL - 12 , POLY PAC - 1 , SODA ASH - 8 , DESCO - 1

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	360	AV (DC):	235
PUMP #	5.5	14	0	0	AV (DP):	157

## SLOW PUMP RATES

PUMP #1:	250	@	31
PUMP #2:	225	@	36

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

## REMARKS

Daily Cost: Patterson \$ 6,800 - Salaries (TX) \$ 500 - ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 351 - Nielson ( Water ) \$ 195 - Pason \$ 905 - Contingency \$ 1,000 .....



Field: BUZZARDS BENCH Activity: DRILLING 8 3/4" HOLE Spud Date: 5/30/00 CD: 36  
 County: EMERY State: UT TD: 7465 Footage: 257 API No: 43-015-30303-00-00  
 OU: FARMINGTON ATD: 7,615 Hours: 15 Estimate No 400522  
 Objective: NAVAJO / WINGATE PBTD: 7,465 Class: Dev Supervisor: J. D. DEROUEN  
 GWI: 0 Well Type: DISPOSA KB: 6,272 BOP Days: 21 Phone: (435) 748-2884  
 Lithology: SDST / / GL: 6254 IDC\$/Ft: \$99.88 Contractor: PATTERSON RIG Daywork

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

## LAST SURVEY

Measured Depth: 7,425  
 True Vertical Depth: 7,420.67  
 Inclination: 2.25  
 Azimuth: 0.00  
 North/South Coordinate: 214.33  
 East/West Coordinate: 0.00  
 Vertical Section: 214.33  
 Dog Leg: 0.22  
 Survey Tool: TOTCO

## WORK

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON SMOKING AREAS & EQUIPMENT.  
 1.00 RIH CONTINUED TRIP IN HOLE.  
 1.00 WAR WASHED 100 FT & REAMED 50 FT TO BOTTOM. UNDER GUAGE HOLE LAST 50 FT.  
 14.00 DRL DRILLED 8 3/4" HOLE FROM 7,208 FT TO 7,459 FT FOR 251 FT @ 17.9 FT/HR.  
 6.50 POH SLUG PIPE, DROP TOTCO & TRIP FOR BIT.  
 0.50 WAR WASH 61 FT TO BOTTOM. OK  
 1.00 DRL DRILLED 8 3/4" HOLE TO 7,465 FT FOR 6 FT.

## TOTAL HOURS

## MUD DATA

Mud Wt: 9.1 Oil: 0  
 Viscosity: 42 MBT: 0  
 PV: 16 pH: 9  
 YP: 10 Pm: 0  
 10 Sec Gel: 7 Pf: 0.1  
 10 Min Gel: 17 Chl: 7000  
 WL: 8.6 CA: 280  
 HTHP: 0 Ex Lime: 0  
 FC: 2 Elec Stab: 0  
 Solids: 5.7 Temp: 0

Daily Cost \$689 Cum: \$32043

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drlg:	\$58275	\$745626	\$803901
Compl:	\$0	\$0	\$0
Total:	\$58275	\$745626	\$803901
Daily:	\$0	\$13777	\$13777

## MUD MATERIAL

GEL - 33 , CAUSTIC - 3 , POLY PAC - 2 , SODA ASH - 9 , DESCO - 4

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	360	AV (DC):	235
PUMP #	5.5	14	0	0	AV (DP):	157

## SLOW PUMP RATES

PUMP #1:	250	@	31
PUMP #2:	225	@	36

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

## REMARKS

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 689 - Pierce Oil ( Diesel ) \$ 1,940 - Pason \$ 905 - Gardiner ( Empty Trash ) \$ 120 - Contingency \$ 1,000 ... BGG 10 to 20 Units , Conn. Gas 20 Units over BGG & Trip Gas 300 Units



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> TRIPPING IN HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 35
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 7208	<b>Footage:</b> 316
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,615	<b>Hours:</b> 16	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 7,208	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 20
<b>Lithology:</b> SDST / /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$101.53	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

LAST SURVEY	
Measured Depth:	7,425
True Vertical Depth:	7,420.67
Inclination:	2.25
Azimuth:	0.00
North/South Coordinate:	214.33
East/West Coordinate:	0.00
Vertical Section:	214.33
Dog Leg:	0.22
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON DO'S & DON'TS , FIRE HAZZARDS.
10.00	DRL	DRILLED 8 3/4" HOLE FROM 6,892 FT TO 7,097 FT FOR 205 FT @ 20.5 FT/ HR.
0.50	RSV	RIG SERVICE
0.50	DRL	DRILLED 8 3/4" HOLE FROM 7,097 FT TO 7,128 FT FOR 31 FT @ 62 FT/HR.
1.00	SVY	CIRCULATED & WIRELINE SURVEY @ 7,083 FT. 3 DEGREES
5.50	DRL	DRILLED 8 3/4" HOLE FROM 7,128 FT TO 7,208 FT FOR 80 FT @ 14.5 FT/HR.
4.50	POH	TRIPPED OUT OF HOLE, CHANGED BIT & TRIPPED IN HOLE TO 3,000 FT.
1.00	RSV	SLIP & CUT DRILL LINE.
1.00	RIH	CONTINUED TRIP IN HOLE.
24.00		<b>TOTAL HOURS</b>

MUD DATA		
Mud Wt:	9.1	Oil: 0
Viscosity:	40	MBT: 0
PV:	11	pH: 9
YP:	6	Pm: 0
10 Sec Gel:	6	Pf: 0.1
10 Min Gel:	17	Chl: 7000
WL:	8.4	CA: 320
HTHP:	0	Ex Lime: 0
FC:	2	Elec Stab: 0
Solids:	5	Temp: 0
Daily Cost	\$969	Cum: \$31354

CASING					
String	Prop Size	Act Size	Prop Dep	Act Dep	
CONDUCT	20	20	40	50	
SURFACE	13.375	13.375	300	305	
INTRMED	9.625	9.625	3000	3014	
PRODUCTI	7	7	7765	7593	

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$731849	\$790124
Compl:	\$0	\$0	\$0
Total:	\$58275	\$731849	\$790124
Daily:	\$0	\$12323	\$12323

MUD MATERIAL	
GEL - 8 , CAUSTIC - 5 , POLY PAC - 3 , SODA ASH - 15 , DESCO - 8	

HYDRAULICS							SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150				
PUMP #	6	16	55	360	AV (DC):	235	PSI Drop:	0	PUMP #1:	250 @ 31
PUMP #	5.5	14	0	0	AV (DP):	157	HP/IN2:	0	PUMP #2:	225 @ 36

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																				
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1

REMARKS	
Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 969 - Nielson ( Water ) \$ 326 - Pason \$ 905 - Contingency \$ 1,000 ... BGG = 10 - 20 Units , Conn. Gas 20 Unit over BGG , Top of Navajo 7,069 ft.	





<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 34
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 6892	<b>Footage:</b> 303
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,615	<b>Hours:</b> 23	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 6,892	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 19
<b>Lithology:</b> SHALE / /	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$104.40	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

LAST SURVEY	
Measured Depth:	7,425
True Vertical Depth:	7,420.67
Inclination:	2.25
Azimuth:	0.00
North/South Coordinate:	214.33
East/West Coordinate:	0.00
Vertical Section:	214.33
Dog Leg:	0.22
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON PPE & EMERGENCY KILL SWITCH.
0.50	WAR	WASHED LAST 40 FT TO BOTTOM.
10.50	DRL	DRILLED 8 3/4" HOLE FROM 6,589 FT TO 6,728 FT FOR 139 FT @ 13.3 FT/HR.
0.50	RSV	RIG SERVICE.
12.50	DRL	DRILLED 8 3/4" HOLE FROM 6,728 FT TO 6,892 FT FOR 164 FT @ 13.1 FT/HR.
24.00		<b>TOTAL HOURS</b>

MUD DATA		
Mud Wt:	9.2	Oil: 0
Viscosity:	50	MBT: 0
PV:	16	pH: 9
YP:	12	Pm: 0
10 Sec Gel:	10	Pf: 0.15
10 Min Gel:	22	Chl: 4200
WL:	9.2	CA: 320
HTHP:	0	Ex Lime: 0
FC:	2	Elec Stab: 0
Solids:	6.1	Temp: 0
Daily Cost	\$996	Cum: \$30385

CASING					
String	Prop Size	Act Size	Prop Dep	Act Dep	
CONDUCT	20	20	40	50	
SURFACE	13.375	13.375	300	305	
INTRMED	9.625	9.625	3000	3014	
PRODUCTI	7	7	7765	7593	

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$719526	\$777801
Compl:	\$0	\$0	\$0
Total:	\$58275	\$719526	\$777801
Daily:	\$0	\$15993	\$15993

MUD MATERIAL	
BAR - 20 , POLY PAC - 3, SODA ASH - 19 , DESCO - 9	

HYDRAULICS						
	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	360	AV (DC):	235
PUMP #	5.5	14	0	0	AV (DP):	157
					PSI Drop:	0
					HP/IN2:	0

SLOW PUMP RATES			
PUMP #1:	250	@	31
PUMP #2:	225	@	36

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																						
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 996 - Nielson ( Water ) \$ 528 - Pierce Oil ( Diesel ) \$ 3,441 - Pason \$ 905 - Contingency \$ 1,000 ... BGG 10 - 20 Units , Conn. Gas 20 Units over BGG , Trip Gas 250 Units.	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 33
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 6589	<b>Footage:</b> 169
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,615	<b>Hours:</b> 18.5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 6,589	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 18
<b>Lithology:</b> SHALE / / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$106.77	<b>Supervisor:</b> J. D. DEROUEN
			<b>Phone:</b> (435) 748-2884
			<b>Contractor:</b> PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

**LAST SURVEY**

Measured Depth: 7,425  
 True Vertical Depth: 7,420.67  
 Inclination: 2.25  
 Azimuth: 0.00  
 North/South Coordinate: 214.33  
 East/West Coordinate: 0.00  
 Vertical Section: 214.33  
 Dog Leg: 0.22  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON CATHEADS & TIE OFFS.  
 3.50 DRL DRILLED 8 3/4" HOLE FROM 6,420 FT TO 6,451 FT FOR 31 FT @ 8.8 FT/HR.  
 0.50 RSV RIG SERVICE.  
 15.00 DRL DRILLED 8 3/4" HOLE FROM 6,451 FT TO 6,589 FT FOR 138 FT @ 9.2 FT/HR.  
 5.00 POH TRIP FOR BIT # 9 @ 6,589 FT.  
 24.00 **TOTAL HOURS**

**MUD DATA**

Mud Wt: 9.2 Oil: 0  
 Viscosity: 45 MBT: 0  
 PV: 13 pH: 9  
 YP: 8 Pm: 0  
 10 Sec Gel: 8 Pf: 0.15  
 10 Min Gel: 17 Chl: 600  
 WL: 8.8 CA: 360  
 HTHP: 0 Ex Lime: 0  
 FC: 2 Elec Stab: 0  
 Solids: 6.1 Temp: 0  
 Daily Cost \$1227 Cum: \$29389

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$58275	\$703533	\$761808
Compl:	\$0	\$0	\$0
Total:	\$58275	\$703533	\$761808
Daily:	\$0	\$17850	\$17850

**MUD MATERIAL**

POLY PAC - 4, CAUSTIC - 7, SODA ASH - 11, DESCO - 11

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	360	AV (DC):	235
PUMP #	5.5	14	0	0	AV (DP):	157

**SLOW PUMP RATES**

PUMP #1:	250	@	31
PUMP #2:	225	@	36

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

**REMARKS**

Daily Cost: Patterson \$ 6,800 - HTC ( Bit # 9 ) \$ 6,500 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 1,227 - Pason \$ 905 - Contingency \$ 1,000 ... BGG 10 - 20 Units , Conn. Gas 20 Unit over BGG.



SWD # 3

Global Drilling

Report: 35

7/4/00

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DRILLING REPORT

Proprietary Information of Texaco Inc.



Field:	BUZZARDS BENCH	Activity:	DRILLING 8 3/4" HOLE	Spud Date:	5/30/00	CD:	32		
County:	EMERY	State:	UT	TD:	6420	Footage:	174	API No:	43-015-30303-00-00
OU:	FARMINGTON	ATD:	7,615	Hours:	23	Estimate No	400522		
Objective:	NAVAJO / WINGATE	PBTD:	6,420	Class:	Dev	Supervisor:	J. D. DEROUEN		
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	17	Phone:	(435) 748-2884
Lithology:	SHAILE / / SD	GL:	6254	IDC\$/Ft:	\$106.80	Contractor:	PATTERSON RIG	Daywork	

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

## LAST SURVEY

Measured Depth: 7,425  
True Vertical Depth: 7,420.67  
Inclination: 2.25  
Azimuth: 0.00  
North/South Coordinate: 214.33  
East/West Coordinate: 0.00  
Vertical Section: 214.33  
Dog Leg: 0.22  
Survey Tool: TOTCO

## WORK

0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON MIXING CHEMICALS & HOUSEKEEPING.
3.00	DRL	DRILLED 8 3/4" HOLE FROM 6,246 FT TO 6,264 FT FOR 18 FT @ 6 FT/HR.
0.50	RSV	RIG SERVICE
12.50	DRL	DRILLED 8 3/4" HOLE FROM 6,264 FT TO 6,357 FT FOR 93 FT @ 7.5 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 6,312 FT. 3 DEGREES
7.50	DRL	DRILLED 8 3/4" HOLE FROM 6,357 FT TO 6,420 FT FOR 63 FT @ 8.4 FT/HR.
24.00		TOTAL HOURS

## MUD DATA

Mud Wt:	9.2	Oil:	0
Viscosity:	48	MBT:	0
PV:	14	pH:	9.5
YP:	7	Pm:	0
10 Sec Gel:	11	Pf:	0.3
10 Min Gel:	22	Chl:	600
WL:	9.8	CA:	280
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6.1	Temp:	0
Daily Cost	\$1822	Cum:	\$28162

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drig:	\$58275	\$685683	\$743958
Compl:	\$0	\$0	\$0
Total:	\$58275	\$685683	\$743958
Daily:	\$0	\$15070	\$15070

## MUD MATERIAL

GEL - 71 , POLY PAC - 6 , CAUSTIC - 6 . SODA ASH - 26 , DESCO - 10 , CEDER FIBER - 3

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	360	AV (DC):	235
PUMP #	5.5	14	0	0	AV (DP):	157

## SLOW PUMP RATES

PUMP #1:	250	@	32
PUMP #2:	200	@	36

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

## REMARKS

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 1,822 - Nielson ( Water ) \$ 680 - Pason \$ 905 - Western Chemical ( Corrosion Protection ) \$ 1,540 - Contingency \$ 1,000 .... BGG 10 - 20 Units , Conn. Gas 20 Units over BGG



SWD # 3

Global Drilling

Report: 34

7/3/00

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DRILLING REPORT

Proprietary Information of Texaco Inc.



Field:	BUZZARDS BENCH	Activity:	DRILLING 8 3/4" HOLE	Spud Date:	5/30/00	CD:	31		
County:	EMERY	State:	UT	TD:	6246	Footage:	231	API No:	43-015-30303-00-00
OU:	FARMINGTON	ATD:	7,615	Hours:	23.5	Estimate No	400522		
Objective:	NAVAJO / WINGATE	PBTD:	6,246	Class:	Dev	Supervisor:	J. D. DEROUEN		
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	16	Phone:	(435) 748-2884
Lithology:	SHALE /LS /SD	GL:	6254	IDC\$/Ft:	\$107.37	Contractor:	PATTERSON RIG	Daywork	

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

## LAST SURVEY

Measured Depth: 7,425  
True Vertical Depth: 7,420.67  
Inclination: 2.25  
Azimuth: 0.00  
North/South Coordinate: 214.33  
East/West Coordinate: 0.00  
Vertical Section: 214.33  
Dog Leg: 0.22  
Survey Tool: TOTCO

## WORK

0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON MASTER CLUTCH & KEEPING WATER AWAY FROM ELECTRICAL EQUIPMENT. DRILLED 8 3/4" HOLE FROM 6,015 FT TO 6,046 FT FOR 31 FT @ 10.4 FT/HR. RIG SERVICE. DRILLING 8 3/4" HOLE FROM 6,046 FT TO 6,246 FT FOR 200 FT @ 9.7 FT/HR.  <b>TOTAL HOURS</b>
3.00	DRL	
0.50	RSV	
20.50	DRL	
24.00		

## MUD DATA

Mud Wt:	9.3	Oil:	0
Viscosity:	39	MBT:	0
PV:	11	pH:	9
YP:	7	Pm:	0
10 Sec Gel:	3	Pf:	0.2
10 Min Gel:	16	Chl:	600
WL:	8.8	CA:	200
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6.8	Temp:	0
Daily Cost	\$803	Cum:	\$26340

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drig:	\$58275	\$670613	\$728888
Compl:	\$0	\$0	\$0
Total:	\$58275	\$670613	\$728888
Daily:	\$0	\$11831	\$11831

## MUD MATERIAL

BAR - 40 , GEL - 10 , POLY PAC - 3 , CAUSTIC - 3 , SODA ASH - 6 , DESCO - 2

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	356	AV (DC):	230
PUMP #	5.5	14	0	0	AV (DP):	154

## SLOW PUMP RATES

PUMP #1:	250	@	32
PUMP #2:	200	@	36

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

## REMARKS

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 803 - Pason \$ 905 - Contingency \$ 1,000 .... BGG 10 - 20 Units , Conn. Gas 10 Units over BGG , Trip Gas 250 Units

<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 30
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 6015	<b>Footage:</b> 147
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,615	<b>Hours:</b> 15	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 6,015	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 15
<b>Lithology:</b> SHALE / SLTST / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$109.52	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

**LAST SURVEY**

Measured Depth: 7,425  
True Vertical Depth: 7,420.67  
Inclination: 2.25  
Azimuth: 0.00  
North/South Coordinate: 214.33  
East/West Coordinate: 0.00  
Vertical Section: 214.33  
Dog Leg: 0.22  
Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON FIRST AID & TRIPPING HAZARDS.  
2.50 DRL DRILLED 8 3/4" HOLE FROM 5,868 FT TO 5,891 FT FOR 23 FT @ 9.2 FT/HR.  
0.50 RSV RIG SERVICE.  
12.50 DRL DRILLED 8 3/4" HOLE FROM 5,891 FT TO 6,015 FT FOR 124 FT @ 9.9 FT/HR.  
4.00 POH DROPPED SURVEY & TRIPPED OUT OF HOLE FOR BIT.  
1.00 RRP CHANGED OUT BAILS.  
3.00 RIH MADE UP BIT # 8 & TRIPPED IN HOLE TO 5,970 FT.  
0.50 WAR WASHED 45 FT TO BOTTOM @ 6,015 FT.

**TOTAL HOURS**

24.00

**MUD DATA**

Mud Wt: 9.1 Oil: 0  
Viscosity: 42 MBT: 0  
PV: 12 pH: 9  
YP: 8 Pm: 0  
10 Sec Gel: 10 Pf: 0.2  
10 Min Gel: 20 Chl: 600  
WL: 9.2 CA: 320  
HTHP: 0 Ex Lime: 0  
FC: 2 Elec Stab: 0  
Solids: 5.4 Temp: 0

Daily Cost \$1174 Cum: \$25537

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$58275	\$658782	\$717057
Compl:	\$0	\$0	\$0
Total:	\$58275	\$658782	\$717057
Daily:	\$0	\$18202	\$18202

**MUD MATERIAL**

GEL - 41 , POLY PAC - 5, CAUSTIC - 6 . SODA ASH - 3 , DESCO - 4

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	356	AV (DC):	230
PUMP #	5.5	14	0	0	AV (DP):	154

**SLOW PUMP RATES**

PUMP #1:	250	@	32
PUMP #2:	200	@	36

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

**REMARKS**

Daily Cost: Patterson \$ 6,800 - Smith ( Bit # 8 ) \$ 6,000 - Salaries ( TX ) \$ 500 - ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 1,174 - Pason \$ 905 - Contingency \$ 1,000 .... BGG = 10 - 20 Units , Connection Gas = 10 Units over BGG ,



Texaco Exploration and Production Inc

3300 N Butler  
Farmington NM 87401

CONFIDENTIAL

July 6, 2000

Mr. Gil Hunt  
Dept. of Natural Resources  
Div. of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: Uath Federal "P" #3-75  
SWD #3 *T185 R07E Sec 11*

Dear Gil:

Enclosed please find copies of the daily drilling reports for the above mentioned wells. These daily drilling reports have been submitted to the Bureau of Land Management.

Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Richard N. Carr  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

Cc: Farmington well file

ksd

RECEIVED

JUL 11 2000

DIVISION OF  
OIL, GAS AND MINING



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> WIRELINE SURVEY	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 24
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 4440	<b>Footage:</b> 59
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 4,440	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 9
<b>Lithology:</b> SHALE / SLST / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$126.04	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

**LAST SURVEY**

Measured Depth: 6,559  
 True Vertical Depth: 6,555.69  
 Inclination: 2.75  
 Azimuth: 0.00  
 North/South Coordinate: 172.38  
 East/West Coordinate: 0.00  
 Vertical Section: 172.38  
 Dog Leg: 0.10  
 Survey Tool: TOTCO

**WORK**

0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: HOUSEKEEPING, KEEP WALK WAYS FREE OF TRIP HAZARDS.
11.00	RRP	RIG REPAIRS. REFAB. ROTARY CHAIN GUARD. INSTALL TORQUE WHEEL.CHANGE OUT VIBRATER HOSE IN MUD LINE.
2.00	RSV	CUT DRILLING LINE.
2.00	RIH	TRIP IN HOLE TO SHOE.
1.50	RRP	CHECK PUMPS AT SHOE. WORK ON # 1 PUMP.
2.00	RIH	TRIP IN HOLE AND WASH 60 ' TO BOTTOM. NO FILL.
5.00	DRL	DRILL FROM 4381' TO 4440'. ROP 11.8 FPH. BW 30. RPM 80-100. GPM 305. PSI 1100.
0.50	SVY	WIRELINE SURVEY AT 4425'.
24.00		<b>TOTAL HOURS</b>

**CONFIDENTIAL**

**MUD DATA**

Mud Wt:	9.2	Oil:	0
Viscosity:	42	MBT:	0
PV:	16	pH:	9.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.6
10 Min Gel:	5	Chl:	200
WL:	7.8	CA:	20
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$0	Cum:	\$15810

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$58275	\$559598	\$617873
Compl:	\$0	\$0	\$0
Total:	\$58275	\$559598	\$617873
Daily:	\$0	\$13537	\$13537

**MUD MATERIAL**
**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1100
PUMP #	6	16	54	305	AV (DC):	199.27
PUMP #	5.5	14	0	0	AV (DP):	126.36
					PSI Drop:	780.58
					HP/IN2:	3.26

**SLOW PUMP RATES**

PUMP #1:	250	@	25
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	267	SLICK	152	160	145	100

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0						
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3	WT	A	E	I	NO	HR

**REMARKS**

PATTERSON-\$3314, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, HUGHES TOOL-\$6000, CONTINGENCY-\$1000. BG-40 TO 80 UNITS. CONN.-20 TO 30 UUNITS OVER BG, TRIP 250 UNITS.



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 25
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 4726	<b>Footage:</b> 286
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 21	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 4,726	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>Supervisor:</b> J. D. DEROUEN
<b>Lithology:</b> SHALE / SLST / SD	<b>GL:</b> 6254	<b>BOP Days:</b> 10	<b>Phone:</b> (435) 748-2884
	<b>IDC\$/Ft:</b> \$121.14	<b>Contractor:</b> PATTERSON RIG	<b>Daywork</b>

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

**LAST SURVEY**

Measured Depth: 6,559  
 True Vertical Depth: 6,555.69  
 Inclination: 2.75  
 Azimuth: 0.00  
 North/South Coordinate: 172.38  
 East/West Coordinate: 0.00  
 Vertical Section: 172.38  
 Dog Leg: 0.10  
 Survey Tool: TOTCO

**WORK**

0.00	SFM	SAFETY TOPICS: RUNNING WIRE LINE SURVEYS. PULLING PIPE FROM TUBS. PPE. NO ACCIDENTS OR NEAR MISSES REPORTED.
0.50	SVY	WIRELINE SURVEY AT 4425. 3 1/2 DEGREE.
7.00	DRL	DRILL FROM 4440' TO 4533'. ROP 13.2 FPH. BW 30. RPM 100. GPM 305. PSI 1100.
0.50	SVY	WIRELINE SURVEY AT 4488. WIRELINE MACHINE MALFUNCTION.
0.50	DRL	DRILL FROM 4533' TO 4540'. ROP 14 FPH. BW 30. RPM 100. 305 GPM. 1100 PSI.
1.00	SVY	WIRELINE SURVEY AT 4530'. 3 DEGREES.
6.50	DRL	DRILL FROM 4540' TO 4625'. ROP 13 FPH. BW 34. RPM 80/100. GPM 316. PSI 1200.
1.00	SVY	WIRELINE SURVEY AT 4612. 2 1/2 DEGREE.
7.00	DRL	DRILL FROM 4625' TO 4726'. ROP 14.4 FPH. BW 38. RPM 80/100. GPM 310. PSI 1200.
24.00		<b>TOTAL HOURS</b>

**CONFIDENTIAL**

**MUD DATA**

Mud Wt:	9.2	Oil:	0
Viscosity:	42	MBT:	0
PV:	16	pH:	9.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.6
10 Min Gel:	6	Chl:	200
WL:	7.2	CA:	20
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6	Temp:	0
Daily Cost	\$980	Cum:	\$16790

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drlg:	\$58275	\$572498	\$630773
Compl:	\$0	\$0	\$0
Total:	\$58275	\$572498	\$630773
Daily:	\$0	\$12900	\$12900

**MUD MATERIAL**

GEL-8, POLY PAC-6, CAUSTIC-4, SODA ASH-6, SAW DUST-10.

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1100
PUMP #	6	16	54	305	AV (DC):	0
PUMP #	5.5	14	0	0	AV (DP):	0
					PSI Drop:	0
					HP/IN2:	0

**SLOW PUMP RATES**

PUMP #		@	
PUMP #1:	0	@	0
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	267	SLICK	152	160	145	100

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0						
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3	WT	A	E	I	NO	HR

**REMARKS**

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, NIELSON-\$795, GARDINER-\$102, CONTINGENCY-\$1000, MI-\$980. BG-20/40 UNITS. CONN-20/30 UNITS OVER BG.





SWD # 3

Global Drilling

Report: 29

6/28/00

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DRILLING REPORT

Proprietary Information of Texaco Inc.



Field: BUZZARDS BENCH Activity: DRILLING Spud Date: 5/30/00 CD: 26  
County: EMERY State: UT TD: 5090 Footage: 364 API No: 43-015-30303-00-00  
OU: FARMINGTON ATD: 7,765 Hours: 23 Estimate No 400522  
Objective: NAVAJO / WINGATE PBTD: 5,090 Class: Dev Supervisor: J. D. DEROUEN  
GWI: 0 Well Type: DISPOSA KB: 6,272 BOP Days: 11 Phone: (435) 748-2884  
Lithology: SHALE / SLST / SD GL: 6254 IDC\$/Ft: \$115.57 Contractor: PATTERSON RIG Daywork

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

## LAST SURVEY

Measured Depth: 6,559  
True Vertical Depth: 6,555.69  
Inclination: 2.75  
Azimuth: 0.00  
North/South Coordinate: 172.38  
East/West Coordinate: 0.00  
Vertical Section: 172.38  
Dog Leg: 0.10  
Survey Tool: TOTCO

## WORK

0.00 SFM NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: PINCH POINTS, SMOKING AREAS, DERRICK CLIMBER.  
3.00 DRL DRILL FROM 4726' TO 4779'. ROP 17.6 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150.  
0.50 RSV SERVICE RIG.  
2.00 DRL DRILL FROM 4779' TO 4810. ROP 15.5 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150.  
0.50 SVY WIRELINE SURVEY AT 4810'. 2 1/2 DEGREES.  
18.00 DRL DRILL FROM 4810' TO 5090'. ROP 15.5 FPH. BW 38. RPM 90/100. GPM 316. PSI 1150. SOME TIGHT CONNECTIONS AT 4950 TO 5000'.  
24.00 TOTAL HOURS

CONFIDENTIAL

## MUD DATA

Mud Wt: 9.2 Oil: 0  
Viscosity: 43 MBT: 0  
PV: 26 pH: 9  
YP: 18 Pm: 0  
10 Sec Gel: 4 Pf: 0.6  
10 Min Gel: 29 Chl: 200  
WL: 8 CA: 180  
HTHP: 0 Ex Lime: 0  
FC: 2 Elec Stab: 0  
Solids: 6 Temp: 0  
Daily Cost \$4475 Cum: \$21265

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drig:	\$58275	\$588250	\$646525
Compl:	\$0	\$0	\$0
Total:	\$58275	\$588250	\$646525
Daily:	\$0	\$15752	\$15752

## MUD MATERIAL

GEL-49, POLY PAC-6, CAUSTICI-4.

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	56	316	AV (DC):	206.45
PUMP #	5.5	14	0	0	AV (DP):	130.91
					PSI Drop:	1109.4
					HP/IN2:	3.53

## SLOW PUMP RATES

PUMP #1:	250	@	22
PUMP #2:	200	@	35

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	267	SLICK	152	160	145	100

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3	WT	A	E	I	NO	HR

## REMARKS

PATTERSON-\$6800, SALARY-\$500, CALLOWAY-\$640, RENTAL-\$739, HWDP-\$439, PASON-\$905, NIELSON-\$254, CONTINGENCY-\$1000,MI-\$4475.BG GAS-20/30 UNITS. CONN GAS-10 UNITS OVER BG.



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 27
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 5264	<b>Footage:</b> 174
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 14	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 5,264	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 12
<b>Lithology:</b> SHALE / SLST / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$116.43	<b>Supervisor:</b> J. D. DEROUEN
			<b>Phone:</b> (435) 748-2884
			<b>Contractor:</b> PATTERSON RIG Daywork

**DIRECTIONAL SURVEYS**

M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

**LAST SURVEY**

Measured Depth: 6,559  
 True Vertical Depth: 6,555.69  
 Inclination: 2.75  
 Azimuth: 0.00  
 North/South Coordinate: 172.38  
 East/West Coordinate: 0.00  
 Vertical Section: 172.38  
 Dog Leg: 0.10  
 Survey Tool: TOTCO

**WORK**

0.00 SFM NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON LOOSE CLOTHING & PPE.  
 2.00 DRL DRILLED 8 3/4" HOLE FROM 5,090 FT TO 5,118 FT FOR 28 FT @ 14 FT/HR.  
 0.50 SVY WIRELINE SURVEY @ 5,075 FT @ 1.75 DEGREES.  
 12.00 DRL DRILLED 8 3/4" HOLE FROM 5,118 FT TO 5,264 FT FOR 146 FT @ 12.2 FT/HR.  
 1.00 CCM CIRCULATED, DROPPED SURVEY & SLUGGED PIPE FOR TRIP.  
 1.50 POH PULLED UP INTO CASING.  
 1.00 RRP REPLACED RADIATOR ON # 2 LIGHT PLANT.  
 2.50 POH FINISHED TRIP OUT OF HOLE.  
 3.50 RIH REPLACED BIT & TRIPPED IN HOLE.

**TOTAL HOURS**

**CONFIDENTIAL**

**MUD DATA**

Mud Wt: 9.2 Oil: 0  
 Viscosity: 40 MBT: 0  
 PV: 16 pH: 8.5  
 YP: 10 Pm: 0  
 10 Sec Gel: 2 Pf: 0.1  
 10 Min Gel: 10 Chl: 200  
 WL: 8 CA: 140  
 HTHP: 0 Ex Lime: 0  
 FC: 2 Elec Stab: 0  
 Solids: 6 Temp: 75

Daily Cost \$1331 Cum: \$22596

**CASING**

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	0

**ESTIMATE (AFE) COSTS**

	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

**ACTUAL COSTS**

	Tangible	Intangible	Totals
Drig:	\$58275	\$612904	\$671179
Compl:	\$0	\$0	\$0
Total:	\$58275	\$612904	\$671179
Daily:	\$0	\$24654	\$24654

**MUD MATERIAL**

GEL - 10, POLY PAC - 6, CAUSTIC - 4, DESCO - 3, SODA ASH - 15

**HYDRAULICS**

	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150
PUMP #	6	16	55	355	AV (DC):	230
PUMP #	5.5	14	0	0	AV (DP):	154

**SLOW PUMP RATES**

PUMP #1:	250	@	30
PUMP #2:	0	@	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	267	SLICK	152	160	145	100

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0	WT	A	E	I	NO	HR
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3						

**REMARKS**

Daily Cost: Patterson \$ 6,800 - HTC ( Bit # 6 ) \$ 6,000 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 739 - M-I Mud \$ 1,121 - Nielson ( Hauled Mud ) \$ 210 - Piece Oil Co ( Diesel ) \$ 5,973 - Pason \$ 905 - Nielson ( Water ) \$ 227 - Contingency \$ 1,100 ... BGG = 20 to 30 Units , Connection Gas 10 Units over BGG.



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 28
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 5590	<b>Footage:</b> 326
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 23.5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 5,590	<b>Class:</b> Dev	<b>Estimate No:</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 13
<b>Lithology:</b> SHALE / SLTST / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$111.80	<b>Supervisor:</b> J. D. DEROUEN
		<b>Phone:</b> (435) 748-2884	<b>Contractor:</b> PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

LAST SURVEY	
Measured Depth:	6,559
True Vertical Depth:	6,555.69
Inclination:	2.75
Azimuth:	0.00
North/South Coordinate:	172.38
East/West Coordinate:	0.00
Vertical Section:	172.38
Dog Leg:	0.10
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON ELECTRICAL HAZZARDS & PROPER USE OF HAND TOOLS.
4.50	DRL	DRILLED 8 3/4" HOLE FROM 5,264 FT TO 5,333 FT FOR 69 FT @ 15.4 FT/ HR.
0.50	RSV	RIG SERVICE.
19.00	DRL	DRILLED 8 3/4" HOLE FROM 5,333 FT TO 5,590 FT FOR 257 FT @ 13.5 FT/HR.
24.00		<b>TOTAL HOURS</b>

CONFIDENTIAL

MUD DATA			
Mud Wt:	9.1	Oil:	0
Viscosity:	44	MBT:	0
PV:	15	pH:	9.5
YP:	10	Pm:	0
10 Sec Gel:	2	Pf:	0.2
10 Min Gel:	11	Chl:	200
WL:	8	CA:	40
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	5.8	Temp:	0
Daily Cost	\$851	Cum:	\$23447

CASING					
String	Prop Size	Act Size	Prop Dep	Act Dep	
CONDUCT	20	20	40	50	
SURFACE	13.375	13.375	300	305	
INTRMED	9.625	9.625	3000	3014	
PRODUCTI	7	7	7765	0	

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$624980	\$683255
Compl:	\$0	\$0	\$0
Total:	\$58275	\$624980	\$683255
Daily:	\$0	\$12076	\$12076

MUD MATERIAL	
GEL - 3, POLY PAC - 5, CAUSTIC - 4 . SODA ASH - 10	

HYDRAULICS							SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150				
PUMP #	6	16	55	355	AV (DC):	230	PSI Drop:	0	PUMP #1:	250 @ 31
PUMP #	5.5	14	0	0	AV (DP):	154	HP/IN2:	0	PUMP #2:	250 @ 36

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
5	1374	3083	267	SLICK	152	160	145	100	

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																				
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3	WT	A	E	I
																			NO	HR

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 739 - M-I Mud \$ 851 - Neilson ( water ) \$ 202 - Pason \$ 905 - Contingency \$ 1,000 ....BGG = 10 - 20 Units , Conn. Gas = 10 Units over BGG , Trip Gas = 200 Units.	



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> DRILLING 8 3/4" HOLE	<b>Spud Date:</b> 5/30/00	<b>CD:</b> 29
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 5868	<b>Footage:</b> 278
<b>OU:</b> FARMINGTON	<b>ATD:</b> 7,765	<b>Hours:</b> 23.5	<b>API No:</b> 43-015-30303-00-00
<b>Objective:</b> NAVAJO / WINGATE	<b>PBTD:</b> 5,868	<b>Class:</b> Dev	<b>Estimate No</b> 400522
<b>GWl:</b> 0	<b>Well Type:</b> DISPOSA	<b>KB:</b> 6,272	<b>BOP Days:</b> 14
<b>Lithology:</b> SHALE / SLTST / SD	<b>GL:</b> 6254	<b>IDC\$/Ft:</b> \$109.16	<b>Supervisor:</b> J. D. DEROUEN
			<b>Phone:</b> (435) 748-2884
			<b>Contractor:</b> PATTERSON RIG Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,075	1.75	0.00	0.28
5,244	2.00	0.00	0.15
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10

LAST SURVEY	
Measured Depth:	6,559
True Vertical Depth:	6,555.69
Inclination:	2.75
Azimuth:	0.00
North/South Coordinate:	172.38
East/West Coordinate:	0.00
Vertical Section:	172.38
Dog Leg:	0.10
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON PROPER TOOL USE & PERSONEL HEALTH. DRILLED 8 3/4" HOLE FROM 5,590 FT TO 5,705 FT FOR 115 FT @ 14.4 FT/HR. WIRELINE SURVEY @ 5,665 FT. 2 1/4 DEGREE. DRILLED 8 3/4" HOLE FROM 5,705 FT TO 5,868 FT FOR 163 FT @ 10.5 FT/HR. <b>TOTAL HOURS</b>
8.00	DRL	
0.50	SVY	
15.50	DRL	
24.00		

**CONFIDENTIAL**

MUD DATA		
Mud Wt:	9.2	Oil: 0
Viscosity:	42	MBT: 0
PV:	14	pH: 9
YP:	9	Pm: 0
10 Sec Gel:	4	Pf: 0.1
10 Min Gel:	16	Chl: 600
WL:	8.4	CA: 40
HTHP:	0	Ex Lime: 0
FC:	2	Elec Stab: 0
Solids:	6.1	Temp: 0
Daily Cost	\$916	Cum: \$24363

CASING					
String	Prop Size	Act Size	Prop Dep	Act Dep	
CONDUCT	20	20	40	50	
SURFACE	13.375	13.375	300	305	
INTRMED	9.625	9.625	3000	3014	
PRODUCTI	7	7	7765	0	

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$640580	\$698855
Compl:	\$0	\$0	\$0
Total:	\$58275	\$640580	\$698855
Daily:	\$0	\$15600	\$15600

MUD MATERIAL	
POLY PAC - 6, CAUSTIC - 2 . SODA ASH - 4	

HYDRAULICS							SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:	1150				
PUMP #	6	16	55	356	AV (DC):	230	PSI Drop:	0	PUMP #1:	250 @ 31
PUMP #	5.5	14	0	0	AV (DP):	154	HP/IN2:	0	PUMP #2:	250 @ 36

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	267	SLICK	152	160	145	100

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
14	9	HTC	8.75	537	6589	6589	0	0	0	0	0	0	0	0	0	0	WT	A	E
13	8	F35	8.75	537	6015	6589	574	65	8.83	38	100	14	14	14	2	3			

REMARKS	
Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 739 - M-I Mud \$ 916 - Pierce Oil ( Diesel ) \$ 3,661 - Pason Mud Loggers \$ 905 - Contingency \$ 1,000 .... BGG = 10 - 20 Units , Conn. Gas = 10 Units over BGG .	



Texaco Exploration and Production Inc

3300 N Butler  
Farmington NM 87401

**CONFIDENTIAL**

July 6, 2000

Mr. Gil Hunt  
Dept. of Natural Resources  
Div. of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: ~~Utah Federal "P" #3-75~~ *USA 3-75 T/85 ROTE Sec.03*  
SWD #3

Dear Gil:

Enclosed please find copies of the daily drilling reports for the above mentioned wells. These daily drilling reports have been submitted to the Bureau of Land Management.

Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Richard N. Carr  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

Cc: Farmington well file

ksd

**RECEIVED**

**JUL 11 2000**

**DIVISION OF  
OIL, GAS AND MINING**



Field: BUZZARDS BENCH	Activity: MOVING TO UTAH FED. "P" 3-74	Spud Date: 06/26/2000	CD: 5
County: EMERY	TD: 3920 PBDT: 3,871	API No: 43-015-30384-00-00	
State: UT	KB: 6,675 Class: Dev	Estimate No 400505	
OU: FARMINGTON	Objective: FERRON	Supervisor: J. D. DEROUEN	
GWl: 0 Well Type: GAS	Lithology: / /	Phone: (435) 748-2884	
Compl Date:	GL: 6667 BOP Days: 5	Contractor: ELENBURG RIG #15	

FLUIDS		TUBING	
Type:		Actual Size	Actual MD
Weight:			
Vis:			
CL:			

PERFS		
Zone	From	To

PACKERS	
Depth	Model

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$4000	\$217000	\$221000
Compl:	\$43000	\$122000	\$165000
Total:	\$47000	\$339000	\$386000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$4180	\$124514	\$128694
Compl:	\$35202	\$8568	\$43770
Total:	\$39382	\$133082	\$172464
Daily:	\$0	\$4771	\$4771

WORK DESCRIPTION		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPIC ON CEMENTING CASING & RIG DOWN.
1.00	CCM	CIRCULATED CASING CAPACITY & RIGGED UP CEMENTING HEAD.
1.00	CMT	TESTED CEMENTING LINE TO 3,000 PSI. CEMENTED 5 1/2" CASING WITH 50 BBLS ( 175 SKS 10-1 RFC + .25#/SK D-29 ) CEMENT @ 14.2 PPG, YIELD 1.61, 7.9 GALS/ SK MIX WATER, THICK TIME 1.5 HRS . DISPLACED WITH 90 BBLS WATER @ 5 BBL/ MIN. PLUG DOWN @ 6:45 AM MST ON 7/2/00 WITH 550 PSI. LIFT PRESSURE 190 PSI.
0.50	CMT	RELEASED PRESSURE, FLOAT HELD OK. RIGGED DOWN DOWELL.
1.50	RDN	NIPPLED DOWN BOPE, SET CASING SLIPS & CUT OFF CASING. RIGGED DOWN ELENBURG RIG # 15. RIG RELEASED @ 9:00 AM 7/2/00.
4.00		TOTAL HOURS

**CONFIDENTIAL**

REMARKS	
Daily Cost: Dowell \$ 4,471 - Neilson \$ 300 ....	

### CEMENT REPORT

String:	PRODUCTION	Start Date:	07/03/2000
Stage:	1	Start Time:	12/30/1999
	"Lead" "Tail"		"Lead" "Tail"
Cement Type:	RFC	Slurry Volume (ft³):	0 50
Cement Top (ft):	0 3500	Thickening Time (h.min)	0 1.5
Slurry Weight (ppg):	0 14.2	Free Water (cc/30m):	0 0
Mix Water (gal/sx):	0 7.9	Fluid Loss (cc/30m):	0 0
Water Type:	FRESH	Comp Str (psi):	0 0
Yield (ft³/sx):	0 1.61	Comp Str (h.min):	0 0
Sacks:	0 175		
Lead Additives:		Tail Additives:	10-1 RFC + .25 #/SK D-29
Comment:	LOSS CIRCULATION DURING CEMENTING DUE TO PACKING OR BRIDGE OFF.		

Cement Returned (bbl): 0  
 Excess Cement %: 100  
 Mud Returned: No  
 Time Plug @Bottom: 12/30/1999  
 Max Pump PSI: 700  
 Bump PSI: 600  
 Pump Rate (bpm): 5

CASING REPORT									
Casing String: PRODUCTION		Run Date: 07/02/2000		Shoe Depth: 3918		Float Collar Depth 3872		DV Tool Depths: 0      0	
Section	Prop. Size	Actual Size	Grade	Weight	Connection	Joints	Length	Prop. Depth	Actual Depth
1	5.5	5.5	N80	17	LTC	87	3922	3940	3918

CONFIDENTIAL



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> CEMENTING 5 1/2" CASING	<b>Spud Date:</b> 06/26/2000	<b>CD:</b> 4
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 3920	<b>Footage:</b> 0
<b>OU:</b> FARMINGTON	<b>ATD:</b> 3,940	<b>Hours:</b> 0	<b>API No:</b> 43-015-30384-00-00
<b>Objective:</b> FERRON	<b>PBTD:</b> 3,920	<b>Class:</b> Dev	<b>Estimate No:</b> 400505
<b>GWI:</b> 0	<b>Well Type:</b> GAS	<b>KB:</b> 6,675	<b>BOP Days:</b> 4
<b>Lithology:</b> SHALE / SLTST /	<b>GL:</b> 6667	<b>IDC\$/Ft:</b> \$31.76	<b>Supervisor:</b> J. D. DEROUEN
			<b>Phone:</b> (435) 748-2884
			<b>Contractor:</b> ELENBURG RIG # Footage

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
1,301	1.50	0.00	0.15
1,798	2.00	0.00	0.10
2,301	1.00	0.00	0.20
2,804	1.75	0.00	0.15
3,308	2.25	0.00	0.10
3,840	3.00	0.00	0.14

LAST SURVEY	
Measured Depth:	3,840
True Vertical Depth:	3,838.45
Inclination:	3.00
Azimuth:	0.00
North/South Coordinate:	97.47
East/West Coordinate:	0.00
Vertical Section:	97.47
Dog Leg:	0.14
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON LOGGING & RUNNING CASING.
1.50	WAR	REAMED THROUGH BRIDGE @ 3,560 FT. ( 3 FT ) WASHED TO BOTTOM 1 FT OF FILL.
1.00	CCM	BLOWING HOLE CLEAN.
3.00	POH	LOAD HOLE WITH 25 BBLS KCL WATER & LAID DOWN DRILL STRING TO LOG.
2.00	WLO	RIGGED UP SCHLUMBERGER. RAN PLATFORM EXPRESS LOG & TAGGED @ 3,430 FT. FAILED TO GET PAST. PULLED LOGGING TOOL OUT OF HOLE & RIGGED DOWN SCHLUMBERGER.
5.00	PUD	PICKED UP BIT & DRILL STRING. TRIPPED IN TO BOTTOM. 15 FT OF FILL.
1.00	CCM	BLOW HOLE CLEAN.
4.00	LDD	LOADED HOLE WITH 25 BBLS KCL WATER & LAID DOWN DRILL STRING.
2.00	WLO	RIGGED UP SCHLUMBERGER. RAN PLATFORM EXPRESS LOG FROM 3,870 FT TO 3,400 FT. OK RIGGED DOWN SCHLUMBERGER.
4.50	PUC	RIGGED UP & RAN 87 JTS 5 1/2", N-80, 17#, LT&C CASING TO 3,918 FT. FLOAT COLLAR @ 3,871 FT. CENTRALIZERS PLACED ON BOTTOM 3 JTS & EVERY OTHER JOINT FROM 3,442 FT FOR A TOTAL OF 12 CENTRALIZERS. MARKER JOINT PLACED @ 3,488 FT.
24.00		TOTAL HOURS

**CONFIDENTIAL**

MUD DATA			
Mud Wt:	0	Oil:	0
Viscosity:	0	MBT:	0
PV:	0	pH:	0
YP:	0	Pm:	0
10 Sec Gel:	0	Pf:	0
10 Min Gel:	0	Chl:	0
WL:	0	CA:	0
HTHP:	0	Ex Lime:	0
FC:	0	Elec Stab:	0
Solids:	0	Temp:	0
Daily Cost	\$600	Cum:	\$600

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	14	14	75	81
SURFACE	8.625	8.625	300	306
PRODUCTI	5.5	5.5	3940	3918

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$4000	\$217000	\$221000
Compl:	\$43000	\$122000	\$165000
Total:	\$47000	\$339000	\$386000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$4180	\$124514	\$128694
Compl:	\$35202	\$3797	\$38999
Total:	\$39382	\$128311	\$167693
Daily:	\$35202	\$26713	\$61915

MUD MATERIAL	
KCL = 20	

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:				
PUMP #	0	0	0	0	AV (DC):	0	PSI Drop:	0	
PUMP #	0	0	0	0	AV (DP):	0	HP/IN2:	0	

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
1	450	306	42.5	S	88	92	84	1300	

DESCRIPTION: BIT, 15 - 6" DC'S

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
1	1	HTC	7.875	537	306	3558	3252	42.5	76.5	30	100	20	20	20	3	3	WT	A	E

REMARKS	
Daily Cost: 5 1/2" Casing \$ 30,977 - Wellhead \$ 4,225 - Bunning ( Trucking for Casing ) \$ 2,300 - Elenburg \$ 1,180 - Salaries (TX) \$ 500 ( Callaway ) \$ 640 - Rentals \$ 40 - M-I ( KCL ) \$ 600 - Weatherford ( Float Equipment ) \$ 622 - Schlumberger \$ 18,956 - Vetco ( Install Wellhead ) \$ 875 - Contingency \$ 1,000 ....	



Daily Cost: Elenburg \$ 7,438 - Salaries ( TX ) \$ 500 - ( Callaway ) \$ 640 - Rentals \$ 40 - Pason \$ 780 - Contingency \$ 1,000 ....



<b>Field:</b> BUZZARDS BENCH	<b>Activity:</b> MIST DRILLING 7 7/8" HOLE	<b>Spud Date:</b> 06/26/2000	<b>CD:</b> 2
<b>County:</b> EMERY	<b>State:</b> UT	<b>TD:</b> 3558	<b>Footage:</b> 2225
<b>OU:</b> FARMINGTON	<b>ATD:</b> 3,940	<b>Hours:</b> 22	<b>Estimate No</b> 400505
<b>Objective:</b> FERRON	<b>PBTD:</b> 3,558	<b>Class:</b> Dev	<b>Supervisor:</b> J. D. DEROUEN
<b>GWI:</b> 0	<b>Well Type:</b> GAS	<b>KB:</b> 6,675	<b>BOP Days:</b> 2
<b>Lithology:</b> SHALE / SLTST /	<b>GL:</b> 6667	<b>IDC\$/Ft:</b> \$25.63	<b>Phone:</b> (435) 748-2884
		<b>Contractor:</b> ELENBURG RIG #	<b>Footage</b>

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
1,301	1.50	0.00	0.15
1,798	2.00	0.00	0.10
2,301	1.00	0.00	0.20
2,804	1.75	0.00	0.15
3,308	2.25	0.00	0.10
3,840	3.00	0.00	0.14

LAST SURVEY	
Measured Depth:	3,840
True Vertical Depth:	3,838.45
Inclination:	3.00
Azimuth:	0.00
North/South Coordinate:	97.47
East/West Coordinate:	0.00
Vertical Section:	97.47
Dog Leg:	0.14
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON PPE & HIGH LINES.
0.50	SVY	WIRELINE SURVEY @ 1,301 FT. 1 1/2 DEGREES
5.50	DRL	MIST DRILLING 7 7/8" HOLE FROM 1,333 FT TO 1,830 FT FOR 497 FT @ 90.4 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 1,798 FT. 2 DEGREES.
5.50	DRL	MIST DRILLING 7 7/8" HOLE FROM 1,830 FT TO 2,333 FT FOR 503 FT @ 91.5 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 2,301 FT. 1 DEGREE
4.50	DRL	MIST DRILLING 7 7/8" HOLE FROM 2,333 FT TO 2,836 FT FOR 503 FT @ 111.8 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 2,804 FT. 1 3/4 DEGREE
6.50	DRL	MIST DRILLING 7 7/8" HOLE FROM 2,836 FT TO 3,558 FT FOR 722 FT @ 111.1 FT/HR. 2,100 SCFM , 10 BBLS WATER PER HOUR & 1 GAL SOAP PER HOUR.
24.00		TOTAL HOURS

**CONFIDENTIAL**

MUD DATA		
Mud Wt:	0	Oil: 0
Viscosity:	0	MBT: 0
PV:	0	pH: 0
YP:	0	Pm: 0
10 Sec Gel:	0	Pf: 0
10 Min Gel:	0	Chl: 0
WL:	0	CA: 0
HTHP:	0	Ex Lime: 0
FC:	0	Elec Stab: 0
Solids:	0	Temp: 0
Daily Cost	\$0	Cum: \$0

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	14	14	75	81
SURFACE	8.625	8.625	300	306
PRODUCT	5.5	5.5	3940	3918

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$4000	\$217000	\$221000
Compl:	\$43000	\$122000	\$165000
Total:	\$47000	\$339000	\$386000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$4180	\$91200	\$95380
Compl:	\$0	\$0	\$0
Total:	\$4180	\$91200	\$95380
Daily:	\$0	\$41125	\$41125

MUD MATERIAL									

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:	250			
PUMP #	0	0	0	0	AV (DC):	0	PSI Drop:	0	
PUMP #	0	0	0	0	AV (DP):	0	HP/IN2:	0	

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
1	450	306	42.5	S	88	92	84	1300	

DESCRIPTION: BIT, 15 - 6" DC'S

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
1	1	HTC	7.875	537	306	3558	3252	42.5	76.5	30	100	20	20	20	3	3	WT	A	E

REMARKS									
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Daily Cost: Elenburg \$ 37,269 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - Rentals \$ 40 - Neilson ( water ) \$ 396 - Stricker's ( Drift, clean & visual check 5 1/2" casing ) \$ 1,280 - Contingency \$ 1,000 .....



Field:	BUZZARDS BENCH	Activity:	MIST DRILLING 7 7/8" HOLE	Spud Date:	06/26/2000	CD:	1
County:	EMERY	State:	UT	TD:	1333	Footage:	1027
OU:	FARMINGTON	ATD:	3,940	Hours:	12	Estimate No	400505
Objective:	FERRON	PBTD:	1,333	Class:	Dev	Supervisor:	J. D. DEROUEN
GWl:	0	Well Type:	GAS	KB:	6,675	BOP Days:	1
Lithology:	SHALE / SLTST /	GL:	6667	IDC\$/Ft:	\$37.57	Phone:	(435) 748-2884
						Contractor:	ELENBURG RIG # Footage

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
1,301	1.50	0.00	0.15
1,798	2.00	0.00	0.10
2,301	1.00	0.00	0.20
2,804	1.75	0.00	0.15
3,308	2.25	0.00	0.10
3,840	3.00	0.00	0.14

LAST SURVEY	
Measured Depth:	3,840
True Vertical Depth:	3,838.45
Inclination:	3.00
Azimuth:	0.00
North/South Coordinate:	97.47
East/West Coordinate:	0.00
Vertical Section:	97.47
Dog Leg:	0.14
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON RIGGING UP & GENERAL FIRST AID.
3.00	MOV	FINISHED RIGGING DOWN & MOVED ELENBURG RIG # 15 TO UTAH FEDERAL # 3 - 75.
2.00	MOV	SPOTTED RIG EQUIPMENT & RIGGED UP ELENBURG RIG # 15.
1.00	NBP	NIPPLED UP 2M BOPE.
3.50	TBP	RIGGED UP DOUBLE JACK TESTERS. TESTED BOPE TO 250 PSI LOW & 2,000 PSI HIGH. MIKE KAMINSKI WITH THE BLM WAS NOTIFIED OF BOP TEST BUT COULD NOT MAKE THIS TEST.
0.50	PUB	PICKED UP BHA #1 AND TIH . TAGGED CEMENT @ 241 FT.
1.50	DRC	DRILLED CEMENT & SHOE TO 306 FT.
6.50	DRL	DRILLED 7 7/8" HOLE WITH MIST FROM 306 FT TO 830 FT FOR 524 FT @ 80.6 FT/HR.
0.50	SVY	WIRELINE SURVEY @ 798 FT. 3/4 DEGREE
5.50	DRL	DRILLED 7 7/8" HOLE ON MIST FROM 830 FT TO 1,333 FT FOR 503 FT @ 91.4 FT/ HR.
24.00		TOTAL HOURS

**CONFIDENTIAL**

MUD DATA			
Mud Wt:	0	Oil:	0
Viscosity:	0	MBT:	0
PV:	0	pH:	0
YP:	0	Pm:	0
10 Sec Gel:	0	Pf:	0
10 Min Gel:	0	Chl:	0
WL:	0	CA:	0
HTHP:	0	Ex Lime:	0
FC:	0	Elec Stab:	0
Solids:	0	Temp:	0
Daily Cost	\$0	Cum:	\$0

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	14	14	75	81
SURFACE	8.625	8.625	300	306
PRODUCTI	5.5	5.5	3940	3918

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drg:	\$4000	\$217000	\$221000
Compl:	\$43000	\$122000	\$165000
Total:	\$47000	\$339000	\$386000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drg:	\$4180	\$50075	\$54255
Compl:	\$0	\$0	\$0
Total:	\$4180	\$50075	\$54255
Daily:	\$4180	\$50075	\$54255

MUD MATERIAL									

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:	200			
PUMP #	5.5	16	0	0	AV (DC):	0	PSI Drop:	0	
PUMP #	0	0	0	0	AV (DP):	0	HP/IN2:	0	

BHA									
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE	
1	450	306	42.5	S	88	92	84	1300	

DESCRIPTION: BIT, 15 - 6" DC'S

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
1	1	HTC	7.875	537	306	3558	3252	42.5	76.5	30	100	20	20	20	3	3	WT	A	E

REMARKS									
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Daily Cost: Redman ( 8 5/8" Casing ) \$ 2,379 - Vetco Gray ( Wellhead ) \$ 1,809 - Trucking \$ 179 - Road, Location & Pit Liner \$ 16,954 - Bill Jr ( Drilled Surface hole ) \$ 8,115 - Elenburg ( Fig ) \$ 17,200 - Salaries \$ 2,140 - Rentals \$ 185 - Cement & 8 5/8" Float Equipment ) \$ 2,471 - Neilson ( Water ) \$ 581 - Double Jack ( Test BOPE ) \$ 1,250 - Contingency \$ 1,000 ....



Texaco Exploration and Production Inc

3300 N Butler  
Farmington NM 87401

July 6, 2000

CONFIDENTIAL

Mr. Gil Hunt  
Dept. of Natural Resources  
Div. of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: Utah Federal "T" 22-69  
Utah Federal "P" 27-87  
Utah Federal "P" 35-89  
SWD #3 *T/BS ROPE SEC 11*

Dear Gil:

Enclosed please find copies of the daily drilling reports for the above mentioned wells. These daily drilling reports have been submitted to the Bureau of Land Management.

Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Alan R. Davis  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

Cc: Farmington well file

ksd

RECEIVED

JUL 25 2000

DIVISION OF  
OIL, GAS AND MINING



Field: BUZZARDS BENCH	Activity: MOVE RIG	Spud Date: 5/30/00	CD: 39
County: EMERY	TD: 7593 PBD: 7,593	API No: 43-015-30303-00-00	
State: UT	KB: 6,272 Class: Dev	Estimate No 400522	
OU: FARMINGTON	Objective: NAVAJO / WINGATE	Supervisor: LUECKING 435-749-2135	
GW: 0 Well Type: DISPOSA	Lithology: / /	Phone: (435) 748-2884	
Compl Date:	GL: 6254 BOP Days: 26	Contractor: PATTERSON RIG 12	

FLUIDS		TUBING	
Type:		Actual Size	Actual MD
Weight:			
Vis:			
CL:			

PERFS		
Zone	From	To

PACKERS	
Depth	Model

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drlg:	\$58275	\$791337	\$849612
Compl:	\$61856	\$51944	\$113800
Total:	\$120131	\$843281	\$963412
Daily:	\$0	\$0	\$0

WORK DESCRIPTION		
0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: RIG DOWN AND MOVE RIG.
0.00	DMB	RIG DOWN AND MOVE OUT RIG. RIG WILL BE OFF LOCATION 7-13-00.
0.00		TOTAL HOURS

**CONFIDENTIAL**

REMARKS	



Field:	BUZZARDS BENCH	Activity:	MOVING OUT PATTERSON # 12	Spud Date:	5/30/00	CD:	39
County:	EMERY	State:	UT	TD:	7593	Footage:	0
OU:	FARMINGTON	ATD:	7,615	Hours:	0	API No:	43-015-30303-00-00
Objective:	NAVAJO / WINGATE	PBTD:	7,593	Class:	Dev	Estimate No	400522
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	25
Lithology:	SDST / SH /	GL:	6254	IDC\$/Ft:	\$104.22	Supervisor:	LUECKING 435-749-2135
						Phone:	(435) 748-2884
						Contractor:	PATTERSON RIG Daywork

## DIRECTIONAL SURVEYS

M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

## LAST SURVEY

Measured Depth:	7,425
True Vertical Depth:	7,420.67
Inclination:	2.25
Azimuth:	0.00
North/South Coordinate:	214.33
East/West Coordinate:	0.00
Vertical Section:	214.33
Dog Leg:	0.22
Survey Tool:	TOTCO

## WORK

0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING ON RIGGING DOWN RIG.
1.00	RSC	FINISHED WASHING OUT MUD PITS. RIG RELEASED @ 07:00 HRS MST ON JULY 11,2000.
1.00		TOTAL HOURS

CONFIDENTIAL

## MUD DATA

Mud Wt:	9.3	Oil:	0
Viscosity:	44	MBT:	0
PV:	16	pH:	9.5
YP:	11	Pm:	0
10 Sec Gel:	7	Pf:	0.25
10 Min Gel:	17	Chl:	6300
WL:	8.4	CA:	200
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6.4	Temp:	0
Daily Cost	\$0	Cum:	\$33689

## CASING

String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

## ESTIMATE (AFE) COSTS

	Tangible	Intangible	Totals
Drlg:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

## ACTUAL COSTS

	Tangible	Intangible	Totals
Drlg:	\$58275	\$791337	\$849612
Compl:	\$61856	\$51944	\$113800
Total:	\$120131	\$843281	\$963412
Daily:	\$3096	\$6871	\$9967

## MUD MATERIAL

BAR - 20 , GEL - 36 , POLY PAC - 1 , SODA ASH - 1 , CAUSTIC - 4 , SAW DUST - 16 , CEDAR FIBER - 3

## HYDRAULICS

	Liner Size	Stk Lgth	SPM	GPM	PSI:	0
PUMP #	0	0	0	0	AV (DC):	0
PUMP #	0	0	0	0	AV (DP):	0

## SLOW PUMP RATES

PUMP #1:	0	@	0
PUMP #2:	0	@	0

## BHA

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

## BITS

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F	8	NO	PR
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E	1	NO	PR

## REMARKS

Daily Cost: L & S Trucking ( Hauled 25 Jts HWDP to Weatherford ) \$ 998 - R. W. Jones ( Hauled 17 Jts HWDP, 5 Jts Drill Pipe & DSA's Back to Weatherford ) \$ 997 - Patterson \$ 1,984 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - Vetco ( Wellhead ) \$ 3,096 - ( Install Wellhead ) \$ 1,010 ( Rental on Wear Sleeve ) \$ 742 .....

Field:	BUZZARDS BENCH	Activity:	CLEANING MUD PITS	Spud Date:	5/30/00	CD:	39
County:	EMERY	State:	UT	TD:	7593	Footage:	0
OU:	FARMINGTON	ATD:	7,615	Hours:	0	Estimate No	400522
Objective:	NAVAJO / WINGATE	PBTD:	7,593	Class:	Dev	Supervisor:	LUECKING 435-749-2135
GWl:	0	Well Type:	DISPOSA	KB:	6,272	BOP Days:	24
Lithology:	SDST / SH /	GL:	6254	IDC\$/Ft:	\$103.45	Phone:	(435) 748-2884
				Contractor:	PATTERSON RIG	Daywork	

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

LAST SURVEY	
Measured Depth:	7,425
True Vertical Depth:	7,420.67
Inclination:	2.25
Azimuth:	0.00
North/South Coordinate:	214.33
East/West Coordinate:	0.00
Vertical Section:	214.33
Dog Leg:	0.22
Survey Tool:	TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON WEARING SAFETY HARNESSSES & TIE OFF.
1.50	CMT	FINISHED FIRST STAGE CEMENT JOB. DROPPED BOMB OPENED DV TOOL.
3.00	CCM	CIRCULATING MUD BETWEEN CEMENT STAGES.
1.50	CMT	CEMENTED SECOND STAGE AS FOLLOWS 30 BBLS CHEMICAL WASH, 10 BBLS WATER, 230 BBLS 11 PPG LEAD ( CLASS G + 12% D20 + 1% D79 + .5 % D112 + .2% D46 + .25 # / SK D29 ) , 47 BBLS 14.2 TAIL ( CLASS G + .25 #/SK D29 ) . DROPPED PLUG & DISPLACED WITH 257 BBLS WATER. PLUG DOWN @ 12:05 HRS MST ON 7/10/00 WITH 1,600 PSI. RELEASED PRESSURE OK. LIFT PRESSURE 820 PSI. FULL RETURN DURING JOB.
4.50	TTM	WELL FLOWING 2" STREAM AFTER PLUG BUMP. MONITOR FLOW THROUGH CHOKE MANIFOLD SLOWLY DROPPED TO 4 GPM. SHUT IN BUILT TO 20 PSI IN 30 MINS. DETERMINED TO BE FLUID FLOW BACK.
2.00	NBP	NIPPLED DOWN BOPE. SET 7" CASING SLIPS WITH 130M ON SLIPS.
6.50	NBP	MADE ROUGHT CUT ON 7" CASING. BROKE DOWN BOP'S AND LAID OUT.
2.00	RWH	INSTALL 11" 3M BY 7 1/16" 5M VETCO TCM PRODUCTION HEAD. TESTED TO 3,000 PSI.
3.00	RSC	WASHING RIG MUD TANKS.
24.00		TOTAL HOURS

MUD DATA			
Mud Wt:	9.3	Oil:	0
Viscosity:	44	MBT:	0
PV:	16	pH:	9.5
YP:	11	Pm:	0
10 Sec Gel:	7	Pf:	0.25
10 Min Gel:	17	Chl:	6300
WL:	8.4	CA:	200
HTHP:	0	Ex Lime:	0
FC:	2	Elec Stab:	0
Solids:	6.4	Temp:	0
Daily Cost	\$770	Cum:	\$33689

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$785476	\$843751
Compl:	\$58760	\$50934	\$109694
Total:	\$117035	\$836410	\$953445
Daily:	\$0	\$45965	\$45965

MUD MATERIAL

BAR - 20 , GEL - 36 , POLY PAC - 1 , SODA ASH - 1 , CAUSTIC - 4 , SAW DUST - 16 , CEDAR FIBER - 3

HYDRAULICS						SLOW PUMP RATES			
	Liner Size	Stk Lgth	SPM	GPM	PSI:				
PUMP #	0	0	0	0	AV (DC):	0	PSI Drop:	0	
PUMP #	0	0	0	0	AV (DP):	0	HP/IN2:	0	

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E

REMARKS

Daily Cost:Nielson ( water ) \$ 1,097- Western Chemical ( Corrosion Protection ) \$ 770 - Completion Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 - ( Callaway ) \$ 640 - Rentals \$ 285 - Westates ( P/U Machine ) \$ 6,810 ( Casing Crew ) \$ 7,570 - Weatherford ( Float Equipment ) \$ 3,707 ( Service ) \$ 1,733 - Dowell \$ 15,193 - Contingency \$ 1,000 ...



**CEMENT REPORT**

String:	PRODUCTION		Start Date:	7/11/00	
Stage:	1		Start Time:	12/30/99	
	"Lead"	"Tail"		"Lead"	"Tail"
Cement Type:		G	Slurry Volume (ft³):	0	320
Cement Top (ft):	0	6500	Thickening Time (h.min)	0	0
Slurry Weight (ppg):	0	15.8	Free Water (cc/30m):	0	0
Mix Water (gal/sx):	0	4.97	Fluid Loss (cc/30m):	0	0
Water Type:		CITY	Comp Str (psi):	0	0
Yield (ft³/sx):	0	1.15	Comp Str (h.min):	0	0
Sacks:	0	278			
Lead Additives:			Tail Additives:	G+.1%D13+.25 #/SK D29	
Comment:	DID NOT BUMP PLUG				

**CONFIDENTIAL**





**CEMENT REPORT**

String:	PRODUCTION		Start Date:	7/11/00	
Stage:	2		Start Time:	12/30/99	
	"Lead"	"Tail"		"Lead"	"Tail"
Cement Type:	G	G	Slurry Volume (ft³):	1291	264
Cement Top (ft):	4000	6000	Thickening Time (h.min)	4.5	3
Slurry Weight (ppg):	11	14.2	Free Water (cc/30m):	0	0
Mix Water (gal/sx):	22.61	7.9	Fluid Loss (cc/30m):	0	0
Water Type:	CITY	CITY	Comp Str (psi):	0	0
Yield (ft³/sx):	3.59	1.6	Comp Str (h.min):	0	0
Sacks:	360	165			
					Cement Returned (bbl): 0
					Excess Cement %: 0.25
					Mud Returned: Yes
					Time Plug @Bottom: 12/30/99
					Max Pump PSI: 897
					Bump PSI: 1600
					Pump Rate (bpm): 3.9
Lead Additives:	G+12%D20+1%D79+.5%D11		Tail Additives:	10:1RFC+.25#/SK D29	
Comment:					

**CONFIDENTIAL**



Field: BUZZARDS BENCH	Activity: CEMENTING 7" CASING	Spud Date: 5/30/00	CD: 38
County: EMERY State: UT	TD: 7593 Footage: 0	API No: 43-015-30303-00-00	
OU: FARMINGTON	ATD: 7,615 Hours: 0	Estimate No 400522	
Objective: NAVAJO / WINGATE	PBTD: 7,593 Class: Dev	Supervisor: LUECKING 435-749-2135	
GWl: 0 Well Type: DISPOSA	KB: 6,272 BOP Days: 23	Phone: (435) 748-2884	
Lithology: SDST / SH /	GL: 6254 IDC\$/Ft: \$103.20	Contractor: PATTERSON RIG Daywork	

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLS
5,665	2.25	0.00	0.06
5,975	3.50	0.00	0.40
6,312	3.00	0.00	0.15
6,559	2.75	0.00	0.10
7,083	3.00	0.00	0.05
7,425	2.25	0.00	0.22

**LAST SURVEY**

Measured Depth: 7,425  
 True Vertical Depth: 7,420.67  
 Inclination: 2.25  
 Azimuth: 0.00  
 North/South Coordinate: 214.33  
 East/West Coordinate: 0.00  
 Vertical Section: 214.33  
 Dog Leg: 0.22  
 Survey Tool: TOTCO

WORK		
0.00	SFM	NO ACCIDENTS OR NEAR MISS REPORTED. SAFETY MEETING TOPICS ON PINCH POINTS, PPE & RUNNING CASING.
0.50	RSC	RIGGED DOWN SCHLUMBERGER WIRELINE.
1.00	RRP	WORKING ON DRAW WORKS BRAKES.
3.50	RIH	TRIPPED IN HOLE TO BOTTOM. OK
2.00	CCM	CIRCULATED HOLE CLEAN FOR CASING & RIGGED UP WESTATES LAY DOWN MACHINE.
6.50	LDD	LAI DOW N DRILL STRING.
1.00	RSC	SAFETY MEETING, RIGGED UP WESTATES CASING TOOLS.
6.00	PUC	RAN 169 JTS 7", 23#, N-80, LTC CASING TO 7,593 FT. FLOAT SHOE @ 7,593 FT, FLOAT COLLAR @ 7,500 FT & DV TOOL @ 6,510 FT. CENTRALIZERS ON EVERY THIRD JOINT UP TO 4,541 FT. 23 TOTAL.
0.50	RSC	INSTALLED DOWELL CEMENTING HEAD.
2.00	CCM	CIRCULATED HOLE CLEAN PRIOR TO CEMENTING.
1.00	CMT	CEMENTING 7" CASING .
24.00		<b>TOTAL HOURS</b>

**CONFIDENTIAL**

MUD DATA		
Mud Wt:	9.3	Oil: 0
Viscosity:	44	MBT: 0
PV:	16	pH: 9.5
YP:	11	Pm: 0
10 Sec Gel:	7	Pf: 0.25
10 Min Gel:	17	Chl: 6300
WL:	8.4	CA: 200
HTHP:	0	Ex Lime: 0
FC:	2	Elec Stab: 0
Solids:	6.4	Temp: 0
Daily Cost	\$525	Cum: \$32919

CASING				
String	Prop Size	Act Size	Prop Dep	Act Dep
CONDUCT	20	20	40	50
SURFACE	13.375	13.375	300	305
INTRMED	9.625	9.625	3000	3014
PRODUCTI	7	7	7765	7593

ESTIMATE (AFE) COSTS			
	Tangible	Intangible	Totals
Drig:	\$48000	\$700000	\$748000
Compl:	\$195000	\$187000	\$382000
Total:	\$243000	\$887000	\$1130000

ACTUAL COSTS			
	Tangible	Intangible	Totals
Drig:	\$58275	\$783609	\$841884
Compl:	\$58760	\$6836	\$65596
Total:	\$117035	\$790445	\$907480
Daily:	\$58760	\$33245	\$92005

**MUD MATERIAL**

BAR - 20 , GEL - 36 , POLY PAC - 1 , SODA ASH - 1 , CAUSTIC - 4 , SAW DUST - 16 , CEDAR FIBER - 3

HYDRAULICS					
	Liner Size	Stk Lgth	SPM	GPM	PSI: 600
PUMP #	6	16	55	360	AV (DC): 0
PUMP #	0	0	0	0	AV (DP): 0

SLOW PUMP RATES			
PUMP #1:		@	
	0	@	0
PUMP #2:		@	
	0	@	0

BHA								
BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
5	1374	3083	334	SLICK	170	175	160	120

DESCRIPTION: BIT,(3) 6 1/4" DC, XO, 42 (41/2") HWDP

BITS																			
RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B
14	9	HTC	8.75	537	6589	7208	619	39	15.9	40	80	14	14	14	8	8	WT	A	F
15	8	F35	8.75	537	7208	7459	251	14	17.9	35	60	14	14	14	4	5	WT	A	E

**REMARKS**

Daily Cost: Patterson \$ 6,800 - Salaries ( TX ) \$ 500 ( Callaway ) \$ 640 - HWDP \$ 439 - Rentals \$ 744 - M-I Mud \$ 525 - Schlumberger \$ 15,761 - Contingency \$ 1,000 ... Completion Cost: 7" Casing \$ 58,760 - C & Y Transportation ( Delivered 7" Casing ) \$ 4,000 - Stricker's ( Clean, Drift & Visual 7" Casing ) \$ 2,786 - Gardiner's ( Tack Casing Collars ) \$ 50 ....



SWD # 3

Report: 41

7/10/00

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**DRILLING REPORT**  
Proprietary Information of Texaco Inc.



**CASING REPORT**

Casing String: PRODUCTION			Run Date: 7/10/00		Shoe Depth: 7593		Float Collar Depth 7500		DV Tool Depths: 6510		0
Section	Prop. Size	Actual Size	Grade	Weight	Connection		Joints	Length	Prop. Depth	Actual Depth	
1	7	7	N-80	23	LTC		169	7605	7765	7593	

CONFIDENTIAL



SWD # 3

Global Drilling

Report: 44

7/13

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**COMPLETION REPORT**  
Proprietary Information of Texaco Inc.

Field:	BUZZARDS BENCH	Activity:	MOVE RIG	Spud Date:	5/30/00	CD:	39
County:	EMERY	TD:	7593	PBTD:	7,593	API No:	43-015-30303-00-00
State:	UT	KB:	6,272	Class:	Dev	Estimate No	400522
OU:	FARMINGTON	Objective:	NAVAJO / WINGATE	Supervisor:	LUECKING 435-749-2135		
GWl:	0	Well Type:	DISPOSA	Lithology:	/	Phone:	(435) 748-2884
Compl Date:		GL:	6254	BOP Days:	26	Contractor:	PATTERSON RIG 12

FLUIDS		TUBING		WORK DESCRIPTION		
Type:		Actual Size	Actual MD	0.00	SFM	NO ACCIDENTS OR NEAR MISSES REPORTED. SAFETY TOPICS: RIG DOWN AND MOVE RIG. RIG DOWN AND MOVE OUT RIG. RIG WILL BE OFF LOCATION 7-13-00.  <b>TOTAL HOURS</b>
Weight:				0.00	DMB	
Vis:				0.00		
CL:						
PERFS						
Zone	From	To				
PACKERS						
Depth	Model					
ESTIMATE (AFE) COSTS						
	Tangible	Intangible	Totals			
Drlg:	\$48000	\$700000	\$748000			
Compl:	\$195000	\$187000	\$382000			
Total:	\$243000	\$887000	\$1130000			
ACTUAL COSTS						
	Tangible	Intangible	Totals			
Drlg:	\$58275	\$791337	\$849612			
Compl:	\$61856	\$51944	\$113800			
Total:	\$120131	\$843281	\$963412			
Daily:	\$0	\$0	\$0			
REMARKS						

CONFIDENTIAL

ORATION &  
INC.  
STATE: UTAH

COMPENSATED NEUTRON  
LITHO-DENSITY  
GAMMA RAY

Well: K.B. 8054 F  
G.L. 8041 F  
D.F. 8033 F  
GROUND LEVEL: 8041 F  
KELLY BUSHING: 13.6 F above Perm. Datum  
KELLY BUSHING

SECTION	TOWNSHIP	RANGE
14	18S	7E
17		
3100 F		
60 S		
7		
84 DEGF		
64 DEGF		
140 10 154		
13 15		
7 19		
VERNAL, UTAH		
KERVIS KLEINHAUS GILL		
MASER		

Exhibit #3  
Cross-section of  
Carmel

COMPANY: TEXACO EXPLORATION AND  
PRODUCTION, INC.  
WELL: SWD #1

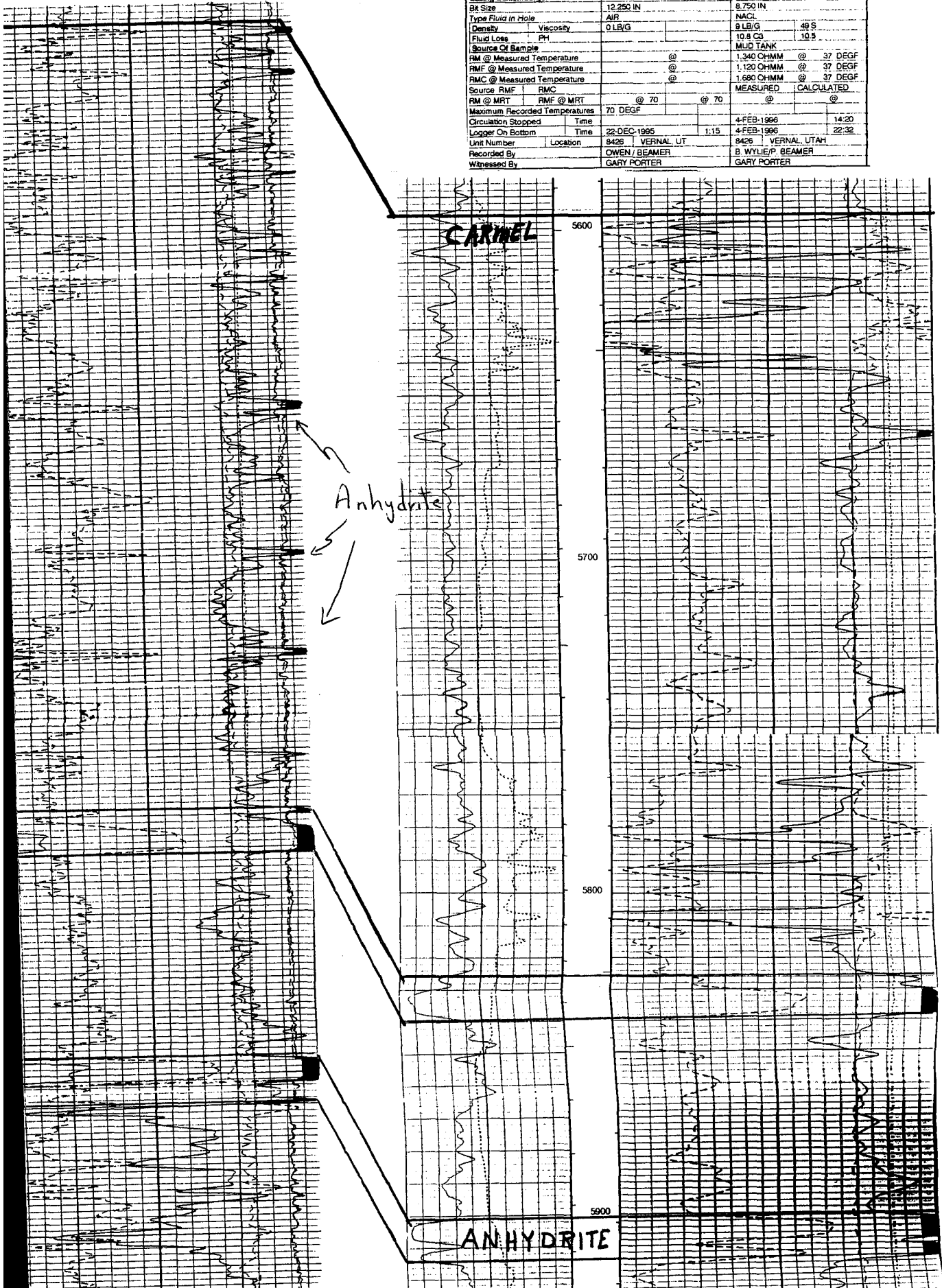
FIELD: WILDCAT

COUNTY: EMERY STATE: UTAH

Schlumberger

COMPENSATED NEUTRON  
LITHO-DENSITY  
GAMMA RAY

2096 FNL & 310' FWL SW 1/4 1/4	Elev.: K.B. 8002.9 F G.L. 5987.5 F D.F. 8001.9 F
Permanent Datum: GROUND LEVEL Log Measured From: KELLY BUSHING Drilling Measured From: KELLY BUSHING	Elev.: 5987.5 F 15.4 F above Perm. Datum
API Serial No. 43-015-30272	SECTION 24 TOWNSHIP 18S RANGE 7E
Logging Date: 21-DEC-1995	4-FEB-1996
Run Number: ONE	ONE
Depth Driller: 2700 F	7760 F
Schlumberger Depth: 2700 F	7760 F
Bottom Log Interval: 2687 F	7754 F
Top Log Interval: 1500 F	6500 F
Casing Driller Size @ Depth: 13.375 IN @ 345 F	9.625 IN @ 2700 F
Casing Schlumberger: 345 F	2700 F
Bit Size: 12.250 IN	8.750 IN
Type Fluid in Hole: AIR	NACL
Density: 0 LB/G	8 LB/G
Viscosity: 0	49 S
Fluid Loss: 0	10.8 CS
Source Of Sample: RMF @ Measured Temperature	MEASURED CALCULATED
RMF @ Measured Temperature: 1.120 OHMM @ 37 DEGF	1.340 OHMM @ 37 DEGF
RMC @ Measured Temperature: 1.580 OHMM @ 37 DEGF	1.120 OHMM @ 37 DEGF
Source RMF: RMF @ MRT	RMF @ MRT
RMF @ MRT: 70 DEGF	70 DEGF
Maximum Recorded Temperatures: 70 DEGF	70 DEGF
Circulation Stopped: Time	Time
Logger On Bottom: 22-DEC-1995 1:15	4-FEB-1996 14:20
Unit Number: 8426 VERNAL UT	8426 VERNAL UT
Recorded By: OWEN / BEAMER	B. WYLIE / BEAMER
Witnessed By: GARY PORTER	GARY PORTER

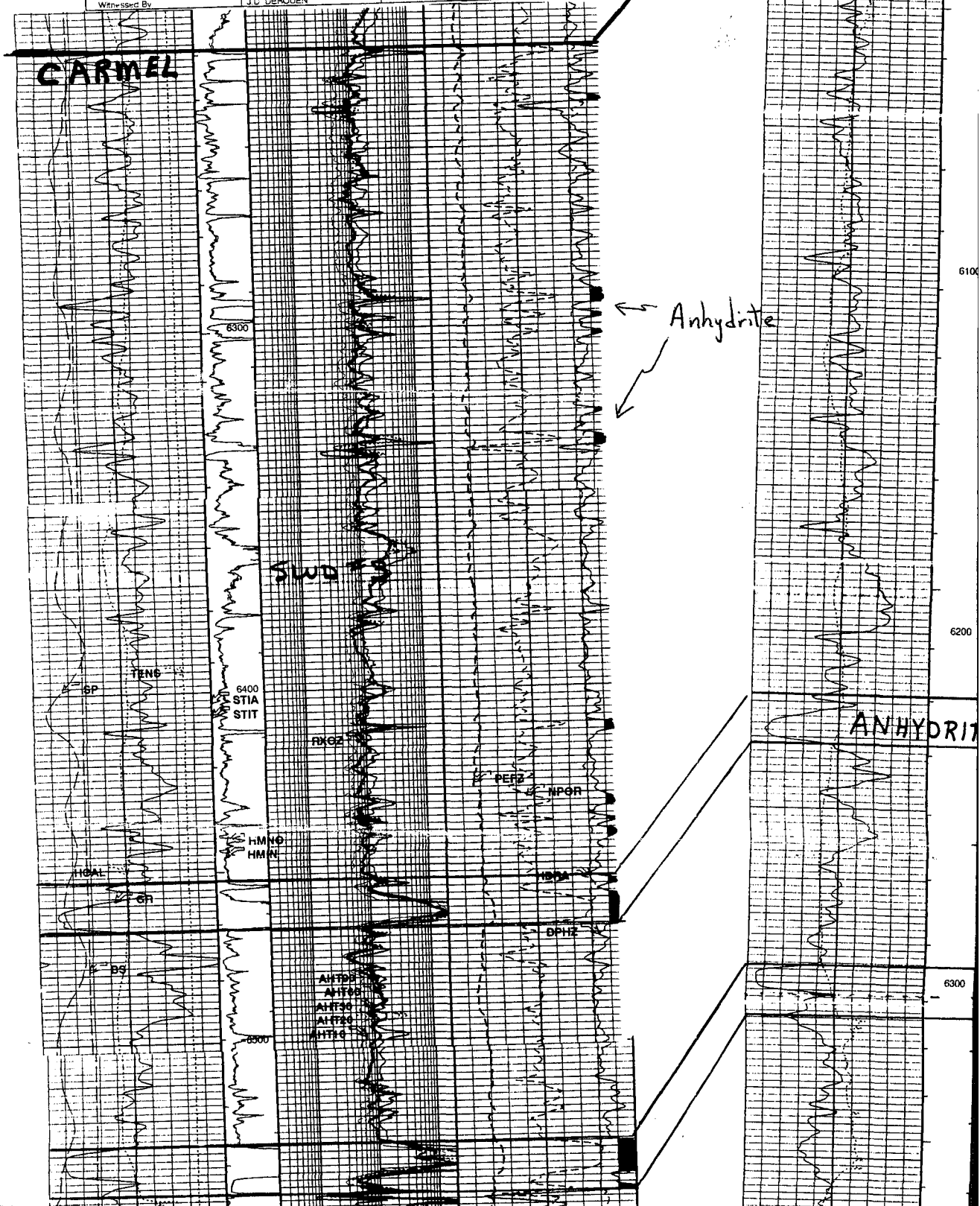


COMPANY: TEXACO EXPLORATION AND  
PRODUCTION  
WELL: SWD #3  
FIELD: BUZZARDS BENCH  
COUNTY: EMERY STATE: UTAH

Schlumberger

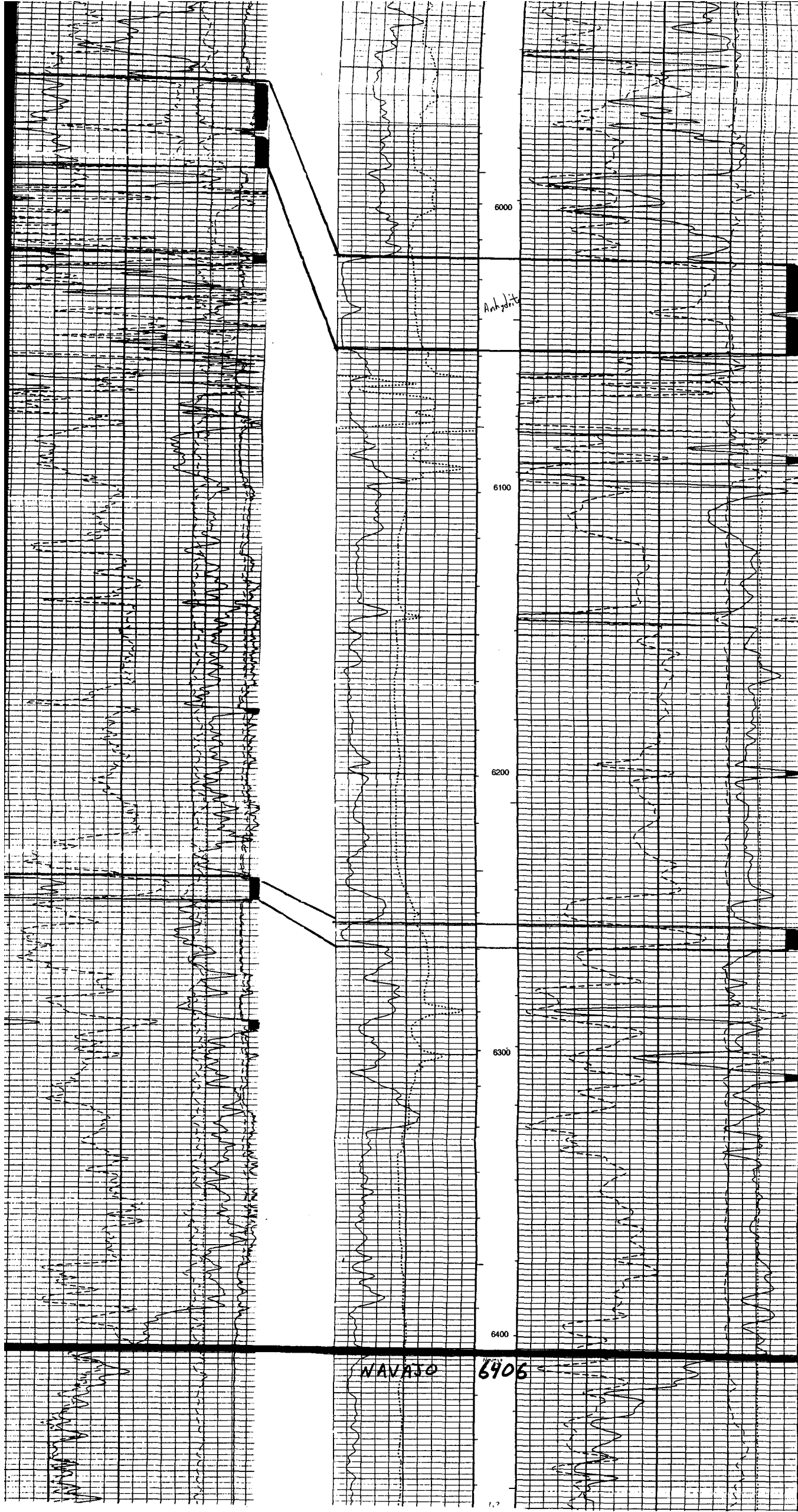
COMPENSATED NEUTRON  
LITHO DENSITY  
GAMMA RAY

11-T18S-R7E 1671' FNL & 994' FEL	Elev.: K.B. 6258 ft G.L. 6254 ft D.F.
Permanent Datum: GROUND LEVEL Log Measured From: KELLY BUSHING Drilling Measured From: KELLY BUSHING	Elev.: 6254 ft 14.0 ft above Perm. Datum
API Serial No. 43-15-30303	SECTION 11 TOWNSHIP 18S RANGE 7E
Logging Date: 10-JUL-2000 Run Number: ONE Depth Driller: 7593 ft Schlumberger Depth: 7514 ft Bottom Log Interval: 7596 ft Top Log Interval: 3023 ft Casing Driller Size @ Depth: 9.625 in @ 3014 ft Casing Schlumberger: 3023 ft Bit Size: 8.750 in Type Fluid In Hole: LSND Density: 8.3 lbm/gal Viscosity: 44 cm <sup>3</sup> Fluid Loss: MUD TANK Source Of Sample: RM @ Measured Temperature: 0.448 ohm.m @ 66 degF RM @ Measured Temperature: 0.358 ohm.m @ 66 degF RMC @ Measured Temperature: 0.538 ohm.m @ 66 degF Source RMC: CALCULATED RM @ MRT: 0.224 @ 139 0.179 @ 139 Maximum Recorded Temperature: 139 degF Circulation Stopped: 9-JUL-2000 20:00 Logger On Bottom: 10-JUL-2000 2:30 Unit Number: 2018 VERNAL UTAH Recorded By: CAMPONESCHI / OWENS Witnessed By: J.C. DEROUEN	

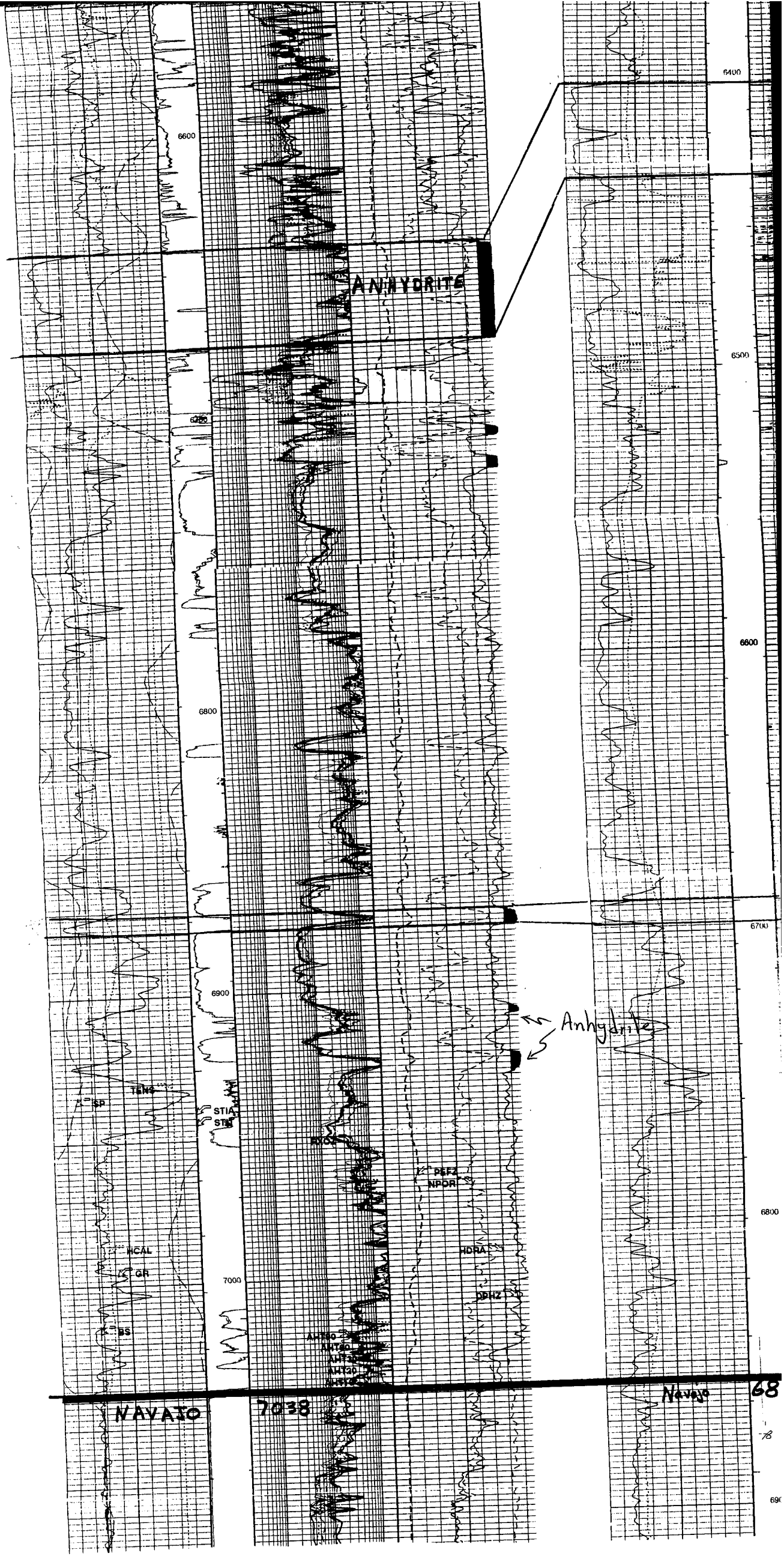


COMPANY: TEX  
WELL: SW  
FIELD: WIL  
COUNTY: EM

EMERY	WILCOAT	111' FNL & 630' FNL	SWD #2	TEXACO EXPLORATION & PRODUCTION	Sch
Field Location	Well	Company	Location	Permanent Log Measured Drilling Interval	111' FNL
Logging Date	Run Number	Depth Driller	Schlumberger Depth	Bottom Log Interval	Top Log Interval
Casing Driller Size @ Depth	Casing Schlumberger	Bit Size	Type Fluid In Hole	Density	Viscosity
Fluid Loss	Source Of Sample	RM @ Measured Temperature	RM @ Measured Temperature	RMC @ Measured Temperature	Source RMC
RM @ MRT	RMC @ MRT	Maximum Recorded Temperature	Circulation Stopped	Logger On Bottom	Number
Recorded By	Witnessed By				











Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

CONFIDENTIAL

July 21, 2000

Ms. Lisha Cordova  
State of Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: State Form 9  
Utah Federal "T" 22-69  
Utah Federal "T" 27-87  
Utah Federal "A" 35-89  
Texaco SWD #3**

Dear Lisha:

Please find Sate of Utah Division of Oil and Gas and Mining Sundry Notices and Reports on Wells Form 9 for the above referenced wels for the drilling portion of the wells. The completed Form 9 will be submitted as soon as the completion phase of the drilling wells is complete.

Thank you for your time and consideration. Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Richard N. Carr  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

cc: BLM, Moab  
Farmington well file

RNC/mc

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DIVISION OF  
OIL, GAS AND MINING

STATE OF UTAH  
DIVISION OF OIL AND GAS AND MINING

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SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.)

1. Type of Well ☐ OIL WELL ☐ GAS WELL ☒ OTHER Disposal

2. Name of Operator  
TEXACO EXPLORATION & PRODUCTION, INC.

3. Address and Telephone Number:

3300 N. Butler Ave, Ste100 Farmington NM 87401 325-4397

5. Lease Designation and Serial Number:  
FEE

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:  
FEE SWD #3

9. API Well Number:  
43-015-30303

10. Field and Pool, or Wildcat:  
WILDCAT

Location of Well

Footages: 1669' North 993' East

QQ, Sec,T.,R.,M: SE , NE , 11 , T18S , R7E

County: EMERY

State: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> OTHER                   |   |

Approximate date work will start

SUBSEQUENT REPORT

(Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> OTHER        | Drilling Completion                           |

Date of work completion 07/12/2000

Report results of Multiple Completions and Recompletions to different reservoirs on Well COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to the work.)

Texaco Exploration & Production Inc. (TEPI) supdded the above referenced well on 5-30-00, drilled & set 50' of 20" conductor pipe, drilled 315' 17-1/2" hole & ran 306' of 13-3/8" 48# H-40 LT&C casingwith 390 SX "G" cmt. (cmt to surface).

5-31 to 6-4-00 moved drilling rig in & set up. TEPI began drilling the above referenced well on 6-4-00 drilling a 12-1/4" hole from 306'. Drilled 12-1/4" hole from 306' to 3014' from 6-4 to 6-14-00. 6-14-00 ran 66 jts (3014") 9-5/8" 36# K-55 LTC casing with 470 SX cmt. w/TOC @ 430". 6-15-00 ran 1" tbg down back side and crnted from 430' to surface with 30 SX cmt. 6-16 & 17-00 rig up BOPs and bits to drill & core. 6-18-00 drill 8-3/4" hole from 3014' to 3019' (core pt), core 3019' -49', drill to 3064' (core pt). 6-19-00 core 3064' - 83'. 6-20-00 begin drilling ahead with 8-3/4" hole. Drilled 8-3/4" hole through 7-8-00to TD of 7593', rigged up Schlumberger & run Platform Express logs7593' to 3014'. 7-9-00 ran 169 jts (7593') 7" 23# N-80 LT&C csg with 803 sx cmt. Rig released 7-13-00.

13.

Name and Signature Richard N. Carr *R. N. Carr* TITLE Eng. Assistant DATE 07/20/2000

(This space for State use only)

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AUG 01 2000

DIVISION OF  
OIL, GAS AND MINING



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

September 1, 2000

Mr. Gil Hunt  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

**Subject:**     Application for Injection Well - UIC Form 1  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Hunt:

Enclosed for your review is an injection application for the above captioned well. This packet is in addition to the previous information sent on 5/31/00.

If you have any questions or require additional assistance, please contact me at (505) 325-4397 ext. 11.

Sincerely,

Ian M. Kephart  
Production Engineer  
Farmington Operating Unit

Enclosures

**RECEIVED**

SEP 06 2000

DIVISION OF  
OIL, GAS AND MINING

# APPLICATION FOR INJECTION WELL - UIC FORM 1

Comments:

**Texaco E&P Inc.**  
**Salt Water Disposal Well Application**  
**SWD#3**

---

**Regulatory Compliance Record**

**R649-5-2-**

<b>2</b>	<b>Application Form 1</b>	<b>Previously Submitted</b>
<b>2.1</b>	<b>Plat showing the location of well &amp; 1/2 mile radius of exposure</b>	<b>Previously Submitted</b>
<b>2.2</b>	<b>Copies of logs (radioactive &amp; electrical)</b>	<b>Attached copies</b>
<b>2.3</b>	<b>Copy of cement bond logs</b>	<b>Attached copies</b>
<b>2.4</b>	<b>Copies of existing logs</b>	<b>No copies on file</b>
<b>2.5</b>	<b>Description of casing</b>	<b>Attached Updated Wellbore Diagram</b>
<b>2.6</b>	<b>Type of fluid, source and estimated volumes / daily</b>	<b>Attached list</b>
<b>2.7</b>	<b>Standard lab analysis of fluid Compatibility of the fluids</b>	<b>To be submitted later</b>
<b>2.8</b>	<b>Proposed pressures</b>	<b>Attached comments</b>
<b>2.9</b>	<b>Evidence and data to support that the well will not initiate fractures to enter fresh water</b>	<b>Attached comments</b>
<b>2.10</b>	<b>Geological data</b>	<b>Attached report and comments</b>
<b>2.11</b>	<b>Review of mechanical conditions</b>	<b>Attached comments</b>
<b>2.12</b>	<b>Affidavit certifying copies have been sent to all owners, operators and surface owners within a 1/2 mile radius</b>	<b>Previously submitted</b>

---

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.1**

**Previously Submitted (5/31/00)**

Plat showing the location of the well, all abandoned or active wells within 1/2 mile radius of proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a 1/2 mile radius of the proposed injection well.

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.2**

Copies of electrical or radioactive logs, including gamma ray logs,  
for the proposed well run prior to the installation of casing and indicating  
resistivity, spontaneous potential, caliper, and porosity.

**See Attached Log Files**

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.3**

Copy of a cement bond or comparable log run for the proposed  
injection well after casing was set and cemented.

See Attached Log Files



**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

Requirements R649 - 5 - 2 - 2.4

Copies of logs already on file with DOGM

Research completed; no logs found

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.5**

Description of the casing and proposed testing procedure

### Current Casing Program

#### TUBULAR PROGRAM

<u>String Type</u>	<u>Hole Size</u>	<u>Depth</u>	<u>Feet</u>	<u>Casing Diameter</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection Type</u>
Conductor	26"	50'	50'	20"			BT&C
Surface	17 1/2"	306'	306'	13 3/8"	48#	H-40	LT&C
Intermediate	12 1/4"	3014'	3017'	9 5/8"	36#	K-55	LT&C
Production	8 3/4"	<del>7593'</del>	<del>7593'</del>	7"	23#	N-80	LT&C
		7620	7,588'				

#### CEMENT PROGRAM

<u>String Type</u>	<u>DV Depth</u>	<u>Stage Lead/Tail</u>	<u>Cement Bottom</u>	<u>Cement Top</u>	<u>No. Sacks</u>	<u>Cement Type</u>	<u>Cmt Yield</u>	<u>Cmt Weight</u>
Surface			300'	Surface	390	G	1.15	15.8
Intermediate		2 <sup>nd</sup> Stage	400'	Surface	145	G	1.61	15.8
		1 <sup>st</sup> Stage	3014'	400'	470	Hi-lift & RFC 10-1	1.61	14.2
Production	6530'	2 <sup>nd</sup> Stage	6530'	5900'	525	G	3.59	14.2
		1 <sup>st</sup> Stage	<del>7765'</del>	6500'	278	G	1.15	15.8

586'

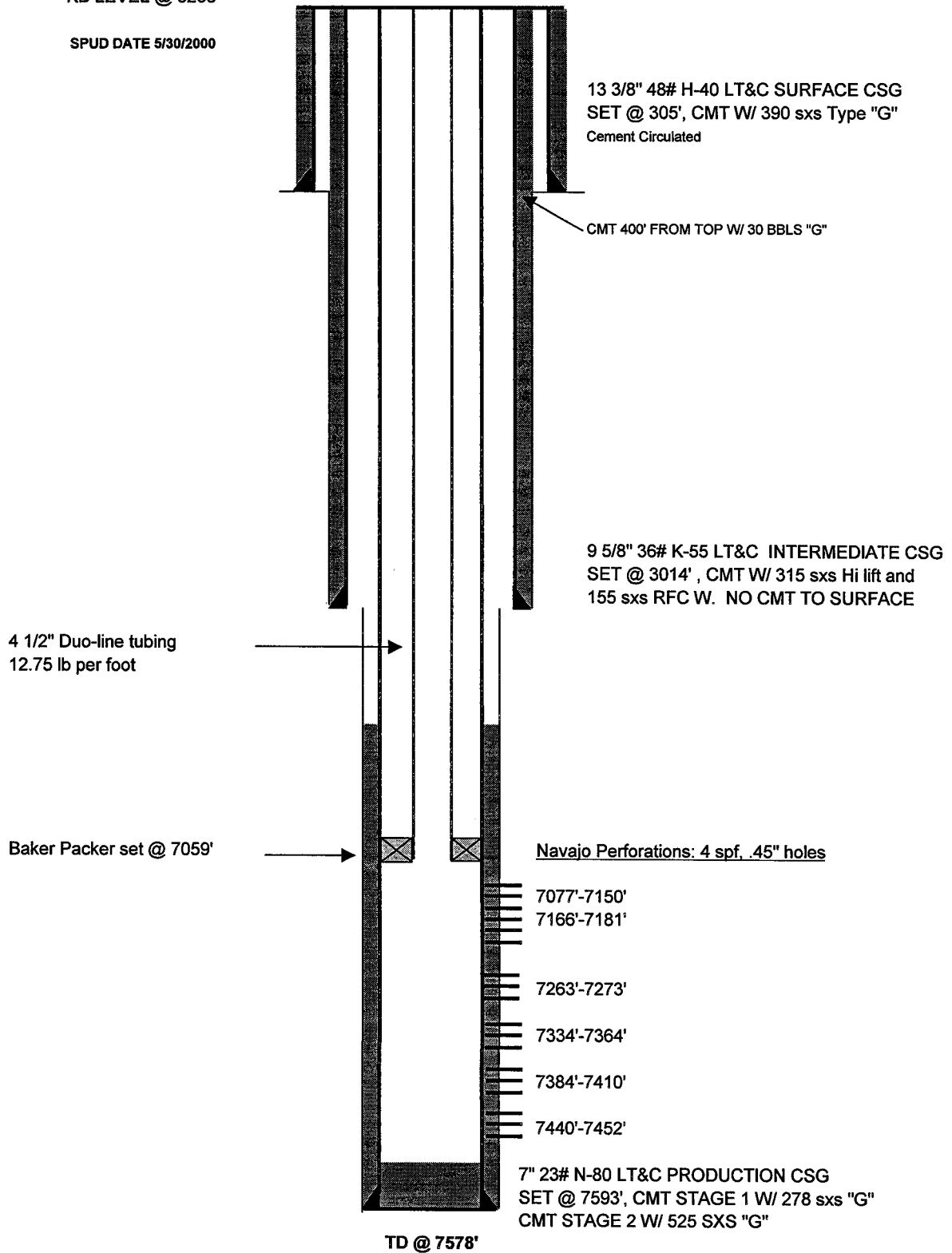
**SWD #3**

SEC 11, T 17S, R 7E  
990' FNL, 1650' FWL  
EMERY COUNTY, UT  
FRSID # 333-69090076

GROUND LEVEL @ 6254'  
KB LEVEL @ 6268'

SPUD DATE 5/30/2000

Current Completion



**Exaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.6**

A statement as to the type of fluid to be used for injection, its source  
and estimated amounts to be injected daily.

The fluid to be injected into SWD #3 will be a composite of waters gathered from gas wells that  
extract water from the Ferron coal seams. These wells are located within the attached lease list.

It is estimated that up to approximately 15,000 barrels of water will be injected daily.

See Attached List of wells that could be potential water sources

LEASE	NUMBER	API_NUM	SEC	TWN	RNGE
D & A JONES	9-59	4301530329	9	T18S	R7E
D & A JONES	15-68	4301530318	15	T18S	R7E
D & D CURTIS	14-54	4301530319	14	T18S	R7E
L & M CURTIS	15-67	4301530325	15	T18S	R7E
L & M CURTIS	10-58	4301530310	10	T18S	R7E
P & K PEACOCK	8-62	4301530320	8	T18S	R7E
PEACOCK TRUST	8-61	4301530326	8	T18S	R7E
PEACOCK TRUST	7-64	4301530327	7	T18S	R7E
PEACOCK TRUST	9-60	4301530321	9	T18S	R7E
PEACOCK TRUST	8-63	4301530328	8	T18S	R7E
R. G. NORRIS	14-40	4301530324	14	T18S	R7E
STATE OF UTAH 'T'	36-10	4301530268	36	T18S	R7E
STATE OF UTAH 'U'	2-11	4301530270	2	T18S	R7E
STATE OF UTAH 'U'	2-50	4301530308	2	T18S	R7E
STATE OF UTAH 'U'	2-49	4301530309	2	T18S	R7E
STATE OF UTAH 'U'	2-48	4301530306	2	T18S	R7E
STATE OF UTAH 'X'	16-65	4301530312	16	T18S	R7E
STATE OF UTAH 'X'	16-66	4301530311	16	T18S	R7E
U.P. & L.	24-57	4301530316	24	T18S	R7E
U.P. & L.	23-51	4301530315	23	T18S	R7E
U.P. & L.	14-53	4301530313	14	T18S	R7E
U.P. & L.	14-55	4301530314	14	T18S	R7E
UTAH FEDERAL 'A'	35-6	4301530247	35	T18S	R7E
UTAH FEDERAL 'A'	34-7	4301530249	34	T18S	R7E
UTAH FEDERAL 'A'	26-2	4301530244	26	T18S	R7E
UTAH FEDERAL 'A'	35-5	4301530248	35	T18S	R7E
UTAH FEDERAL 'A'	26-4	4301530246	26	T18S	R7E
UTAH FEDERAL 'A'	35-89	4301530446	35	T18S	R7E
UTAH FEDERAL 'C'	23-8	4301530245	23	T18S	R7E
UTAH FEDERAL 'D'	35-15	4301530287	35	T17S	R7E
UTAH FEDERAL 'D'	34-12	4301530282	34	T17S	R7E
UTAH FEDERAL 'D'	35-13	4301530285	35	T17S	R7E
UTAH FEDERAL 'D'	35-14	4301530286	35	T17S	R7E
UTAH FEDERAL 'D'	34-80	4301530389	34	T17S	R7E
UTAH FEDERAL 'D'	34-82	4301530390	34	T17S	R7E
UTAH FEDERAL 'P'	3-74	4301530383	3	T18S	R7E
UTAH FEDERAL 'P'	3-75	4301530384	3	T18S	R7E
UTAH FEDERAL 'P'	10-47	4301530258	10	T18S	R7E
UTAH FEDERAL 'P'	10-42	4301530276	10	T18S	R7E
UTAH FEDERAL 'P'	10-43	4301530277	10	T18S	R7E
UTAH FEDERAL 'P'	11-72	4301530387	11	T18S	R7E
UTAH FEDERAL 'Q'	4-44	4301530280	4	T18S	R7E
UTAH FEDERAL 'R'	9-45	4301530275	9	T18S	R7E
UTAH FEDERAL 'S'	8-46	4301530274	8	T18S	R7E
UTAH FEDERAL 'T'	22-69	4301530451	22	T18S	R7E
UTAH FEDERAL 'T'	27-87	4301530456	27	T18S	R7E
STATE OF UTAH 'Z'	1-76	4301530381	1	T18S	R7E

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.7**

Standard laboratory analyses of the fluid to be injected,  
the fluid in the formation into which the fluid is being injected,  
and the compatibility of the fluids.

**Lab Reports will be submitted later**

**Texaco Exploration and Production Inc.  
3300 North Butler, Suite 100  
Farmington, New Mexico 87401  
(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.8**

Proposed average and maximum injection pressures.

A maximum of 15,000 barrels of water per day at a maximum pressure of 1,750 psi.

**Step Rate Test Analysis to be submitted later**



**Texaco Exploration and Production Inc.  
3300 North Butler, Suite 100  
Farmington, New Mexico 87401  
(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.9**

Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

Attached write-up about Carmel Formation and log cross-sections between the SWD #3 and the existing SWD #2 and SWD #1 disposal wells.

### **Description of Carmel Formation**

The top of the Navajo Formation is at a depth of 7038 feet in SWD #3. The Carmel Formation overlies the Navajo Formation and is 816 feet thick. It consists of sandstones, shales, limestones and anhydrite. The total anhydrite thickness is 103 feet. The thickest individual anhydrite zone is 34 feet thick from 6640 feet to 6674 feet.

Exhibit 3 is a cross-section of the entire Carmel Formation in SWD #1, 2 and 3. The anhydrite layers are fairly continuous in all three wells, indicating that the depositional environment of the Carmel Formation is very similar. SWD #2 contains 74 feet of anhydrite within the Carmel Formation that is 876 feet thick. SWD #1 contains 64 feet of anhydrite within the Carmel Formation that is 810 feet thick.

SWD #3 contains more anhydrite than the other two wells and therefore these impermeable barriers will prevent migration of injected fluids out of the Navajo sandstones. Laboratory studies by Stim-Lab, Inc. of the Carmel and Navajo Formations in SWD #1 and 2 indicated that surface injection pressures of 1750 psi would allow sustained injection into the Navajo sandstone while preventing water migration out of the target injection zone. Since SWD #3 exhibits the same geologic conditions as SWD #1 and #2, and even thicker anhydrite, an injection pressure of 1750 psi is also appropriate for this well.

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.10**

Appropriate geological data on the injection interval and confining beds, including

- (1) geological name
- (2) lithological description
- (3) thickness
- (4) depth
- (5) lateral extent
- (6) information relative to geologic structure near the proposed well which may effect the conveyance and/or storage of the injected fluids.

Attached description with supporting data from Montgomery Watson Study (Dec. 95)  
and Mavor Study (May 2000)

### **Geological Description**

(1) Geological names and data of injection interval and confining beds:

Carmel Formation:

Sandstone, limestone, anhydrite and shale

Depth: 6220 feet

Thickness: 816 feet

Navajo Formation:

Sandstone and shale

Depth: 7038 feet

Thickness: 436 feet

Kayenta Formation:

Sandstone and shale

Depth: 7474 feet

Thickness: 104 feet

Lateral extent for all 3 formations is at least 20 miles in all directions

(2) The following pages are copies of a study done by Montgomery Watson in December 1995 describing the general geology of the Navajo in the vicinity of the SWD #3 injection location. It describes the structure of the Navajo and the ground water movement in the area.

Also attached are some pages from the Mavor Study, which was submitted in July of 2000. Figure 11 from the report shows the structure of the Navajo. Figures 25 through 28 illustrate the pressure distribution over time if water was injected into a number of wells in the Orangeville and Huntington areas. For further description of these figures, turn to page 16 of the Mavor Study.



**MONTGOMERY WATSON**

December 14, 1995

Texaco Exploration and Production  
P.O. Box 2100, Room 532  
Denver, Colorado 80201

FARMINGTON AREA			
TAT	✓	✓	✓
EH	✓	✓	✓
LNS	✓	✓	✓
JAN 8 1996			
TBR		JIV	
ROD		UDP	✓
MGR		RFS	✓
DHS		FILE	✓
TLD		Return To	

ATTN: Mr. R.A. Lamarre

Subject: Hydrogeologic Assessment in the Vicinity of the Proposed  
Texaco Ferron Coalbed Methane Water-Disposal Well No. 1

Dear Mr. Lamarre:

This letter-report is a summary of findings of an evaluation of general groundwater quality and hydrogeologic conditions in the vicinity of the proposed Texaco Ferron Coalbed Methane project in Emery County, Utah.

### **Project Background and Scope**

It is our understanding that Texaco proposes to drill water-disposal well SWD #1 in Section 24, Township 18 South, Range 7 East, in Emery County, Utah. It is anticipated that the well will be drilled to a depth of approximately 7,300 feet, and be completed in the Navajo Sandstone. The proposed well will be used to dispose of water removed from nearby proposed coalbed methane production wells completed in the Ferron Sandstone.

The purpose of this evaluation is to provide Texaco with an independent evaluation of hydrogeologic conditions in the area of the proposed well, specifically those in the Navajo Sandstone. The scope of our services included the collection and analysis of available information for permitted water-supply and oil and gas wells within a minimum five-mile radius of the proposed disposal well site, and review and interpretation of available geologic maps and reports for the area. Data sources included:

- Utah Department of Natural Resources Division of Water Rights database, files, and reports
- Utah Division of Oil, Gas and Mining (UDOGM) files
- Utah Geological Survey reports and maps
- U.S. Geological Survey (USGS) database, reports, and maps

## **Geology of the Navajo Sandstone**

The Lower Jurassic Navajo Sandstone is a light-brown to light-gray, thick-bedded to massive, cross-bedded quartzose sandstone. The Navajo is generally fine-grained, clean and friable. The formation contains a few thin lenticular, light-gray limestone beds in the upper part (Witkind, 1995). Navajo exposures range from steep cliffs to rounded knolls and nearly flat terrain. The Navajo Sandstone ranges in thickness from 400 to 1,000 feet along the west flank of the San Rafael Swell, and is 450 to 500 feet thick in the vicinity of the proposed disposal well (Hood and Patterson, 1984, Plate 6; attached Figure 1). On the portion of the San Rafael Swell east of Castle Dale, the Navajo Sandstone strikes generally northeast and dips from 3 to 7 degrees west (Witkind, 1988).

## **Groundwater Occurrence**

Groundwater in the northern San Rafael Swell area occurs under confined, unconfined, and perched conditions. Most water in the unconsolidated surficial deposits is unconfined and saline, due to the solution of evaporite minerals. Perched conditions occur in partially or fully-saturated strata underlain by less-permeable, unsaturated rocks. Water in consolidated strata such as the Navajo Sandstone is unconfined in and near outcrops around the perimeter of the Swell where recharge to the aquifer occurs (see attached Figure 2). Downgradient and downdip from the recharge areas, the water level in the confined aquifer intersects the contact with an overlying confining layer, and groundwater is under confined conditions. In the San Rafael Swell, the Carmel Formation serves as the confining layer above the Navajo Sandstone.

## **Groundwater Movement**

According to Hood and Patterson (1984, Plate 5) the piezometric surface of groundwater in the Navajo Sandstone is approximately 5,350 feet above mean sea level in the vicinity of SWD #1 (about 640 feet below ground level). Groundwater in the Navajo Sandstone is recharged by infiltration into exposures of the formation around the flanks of the San Rafael Swell. Recharge along the west flank flows downdip (westerly) toward Castle Valley (Figure 2). Approximately 20 miles south of Castle Dale, the west-flank groundwater flow in the Navajo splits into north and south components (Hood and Patterson, 1984, Plate 5; Weiss, 1987, Figure 7). The direction of groundwater movement in the Navajo north of the groundwater divide (in the area of Castle Dale) is north-northeast; Navajo groundwater flow continues clockwise around the north end of the San Rafael Swell, and generally southwest along the east flank of the Swell, until it intercepts and discharges to the Green River.

Based on analysis of shallow (less than 5 feet in depth) bedrock cores and outcrop samples, the porosity of the Navajo Sandstone in the northern San Rafael Swell area ranges

from 3.6 to 26.8 percent (averaging 17.7 percent), and hydraulic conductivities range from 0.0037 to 5.1 feet per day (Hood and Patterson, 1984). As calculated from Hood and Patterson's piezometric contour map (1984, Plate 5; attached Figure 2), the hydraulic gradient of groundwater in the Navajo near Castle Dale is northerly, at 0.030 feet per foot.

The horizontal rate of groundwater flow (or average linear velocity) can be calculated using a modified form of the Darcy Equation (Freeze and Cherry, 1979):

$$v = (K/n) (dh/dl)$$

where:

v	=	average linear velocity (feet per day)
K	=	hydraulic conductivity (feet per day)
n	=	porosity (fraction)
dh/dl	=	hydraulic gradient (feet/foot)

Using the published range of values for K and n and the calculated dh/dl discussed above, the calculated average linear velocity of groundwater in the Navajo Sandstone in the northern San Rafael area may range from 0.1527 feet per year (low conductivity, high porosity) to 1,567 feet per year (high conductivity, low porosity). It should be noted that these velocities are not based on site-specific data, but are calculated using hydraulic characteristics of near-surface, weathered samples. It is probable that the velocity of groundwater flow in the formation as a whole, and particularly in the unweathered formation at depth, is more in line with the lower velocity.

Near Caineville (approximately 60 miles due south of Castle Dale), cores of Navajo Sandstone from 1,000 to 2,000 feet below ground surface had an average horizontal hydraulic conductivity (K) of 0.5 feet per day (Hood and Danielson, 1979, pg. 36). Assuming that the K value of these cores is more representative of the hydraulic conductivity of the Navajo at depth in the Castle Dale area, and assuming the 17.7 percent average porosity and 0.0303 hydraulic gradient of Hood and Patterson (1984), an average linear velocity of 31.2 feet per year is derived.

### Groundwater Use

Deep-source groundwater use in Emery County is apparently very limited. A review of recorded water rights for the 120 sections within an approximate 5-mile radius of SWD #1 revealed a total of 394 water rights. Of these, 389 are surface rights on creeks, three rights are for underground drains installed in the 1970s, and two are underground water rights for wells 20 and 60 feet deep installed in 1927 and 1877, respectively. According to the Utah Division of Water Rights regional engineer, no water is currently withdrawn from the Navajo Sandstone in Castle Valley, and communities rely on surface water and spring flow collected from the Wasatch Plateau.

Five test wells were installed in 1981 by Utah Power and Light (UP&L) in Section 1, Township 19 South, Range 9 East and Section 7, Township 19 South, Range 10 East (12 miles east-southeast of SWD #1, see Figure 2). The wells were drilled to the top of the Kayenta Formation and completed in the Navajo at depths ranging from 575 to 882 feet. Navajo thickness ranged from 340 to 404 feet.

### Groundwater Quality

In general, groundwater is saline in much of the northern San Rafael Swell area. Most formations in the Swell contain fresh water only near the recharge areas. Fresh water occurs in the Navajo Sandstone near outcrop areas on the perimeter of the Swell where infiltration of meteoric water flushes out dissolved solids. In most other areas of the northern San Rafael Swell, with increasing distance from recharge areas, water in the Navajo shows degradation by interformational leakage and mixing with saline water from adjacent formations (e.g., the overlying Carmel Formation) which contain gypsum, halite, and other evaporite minerals (Hood and Patterson, 1984).

Water samples collected by UP&L from the Navajo at various depths in the above-mentioned wells were submitted for laboratory analyses of water quality. The analytical results indicate total dissolved solids (TDS) concentrations from 600 to 6,799 milligrams per liter (mg/l). These wells are only 5 miles downdip from numerous narrow canyon-bottom exposures of the Navajo, and only 8 miles downdip of broad Navajo exposures with little relief. The relative "freshness" of some of the samples of Navajo groundwater from the UP&L wells is probably a function of shallow depth and the proximity of the wells to this recharge area.

The salinity of groundwater typically increases with depth of burial and distance from the area of recharge (Freeze and Cherry, 1979, pg. 241-243). This degradation in quality is primarily related to the distance the groundwater has traveled (allowing more time for dissolution of minerals in the formation).

Although there are no deep-aquifer water-quality data available for the immediate vicinity of the proposed disposal well, it is reasonable to expect that water quality in the Navajo Sandstone degrades westward with increasing depth and distance from the outcrop; the Navajo at SWD #1 is under 6,300 feet of cover and approximately 20 miles downgradient from the nearest recharge area.

According to information provided by Texaco, the total dissolved solids concentration of groundwater collected from the Navajo Sandstone at the River Gas Corporation Drunkard's Wash injection well D-1 (immediately southwest of Price, Utah, see attached Figure 1) was analyzed at approximately 172,000 milligrams per liter (parts per million [ppm]), an extremely saline brine. The Navajo Sandstone at well D-1 is under approximately 5,700 feet of cover, and is about 28 miles north-northwest of the nearest outcrop (recharge area) of the Navajo in the San Rafael Swell. The TDS concentration of water removed from the Ferron Sandstone coal beds at Drunkard's Wash and injected in the Navajo Sandstone at



well D-1 is approximately 15,000 ppm; thus, the injection of Ferron water actually decreases the salinity of groundwater in the Navajo.

In December, 1994, Texaco drilled a test well to the Ferron Sandstone in southwest Section 26, Township 18 South, Range 7 East, approximately 1.5 miles southwest of proposed SWD #1. Groundwater collected from this test well at depths of 2,970 and 3,090 feet had a combined TDS concentration of 11,000 ppm, somewhat less saline than the water injected at Drunkard's Wash..

### **Potential Effects of Water-Disposal on Water Quality in the Navajo Aquifer**

The effect of Ferron Sandstone groundwater disposal on water quality in the Navajo Sandstone in the vicinity of proposed disposal well SWD #1 will depend primarily on the quality of water removed from the Ferron during dewatering and gas production, and the quality of groundwater in the Navajo prior to injection of the Ferron water. The distance from the recharge area and the depth of burial of the Navajo Sandstone at the proposed SWD #1 site suggest that groundwater quality conditions similar to those at Drunkard's Wash may be encountered, and that injection of saline water from the Ferron may improve groundwater quality in the Navajo.

Hood and Patterson (1984, pg. 40) note that the relatively low transmissivity of the Navajo Sandstone results in a restricted cone of depression and large drawdown under pumping. Because groundwater injection and groundwater withdrawal in confined aquifers have equivalent but inverse effects on the potentiometric surface surrounding the injection or withdrawal point (Freeze and Cherry, 1979, pg. 454), it is reasonable to expect that injection will result in a high, but relatively restricted groundwater mound in the Navajo Sandstone. Considering the upgradient distance to fresher, more usable water in the Navajo (closer to the formation's recharge area 20 miles east of proposed SWD #1), it seems unlikely that the proposed injection of Ferron groundwater will adversely affect groundwater quality in the vicinity of future potential water-production sites.

Because deep groundwater-quality information is not currently available for the vicinity of the proposed SWD #1 well site, and because the quality of groundwater to be removed from the proposed production wells in the Ferron Sandstone is known from only one test well, the effects of water disposal at SWD #1 cannot be predicted with certainty. Additional data, including analysis of groundwater in both the Ferron and Navajo formations, and tests of Navajo Sandstone aquifer characteristics in well SWD #1 itself, will be needed to confidently predict the effects of water disposal on Navajo water quality.

It has been a pleasure to work with you on this project. If you have any questions or require additional information or services, please do not hesitate to call me at (801) 273-2416.

Sincerely,

MONTGOMERY WATSON

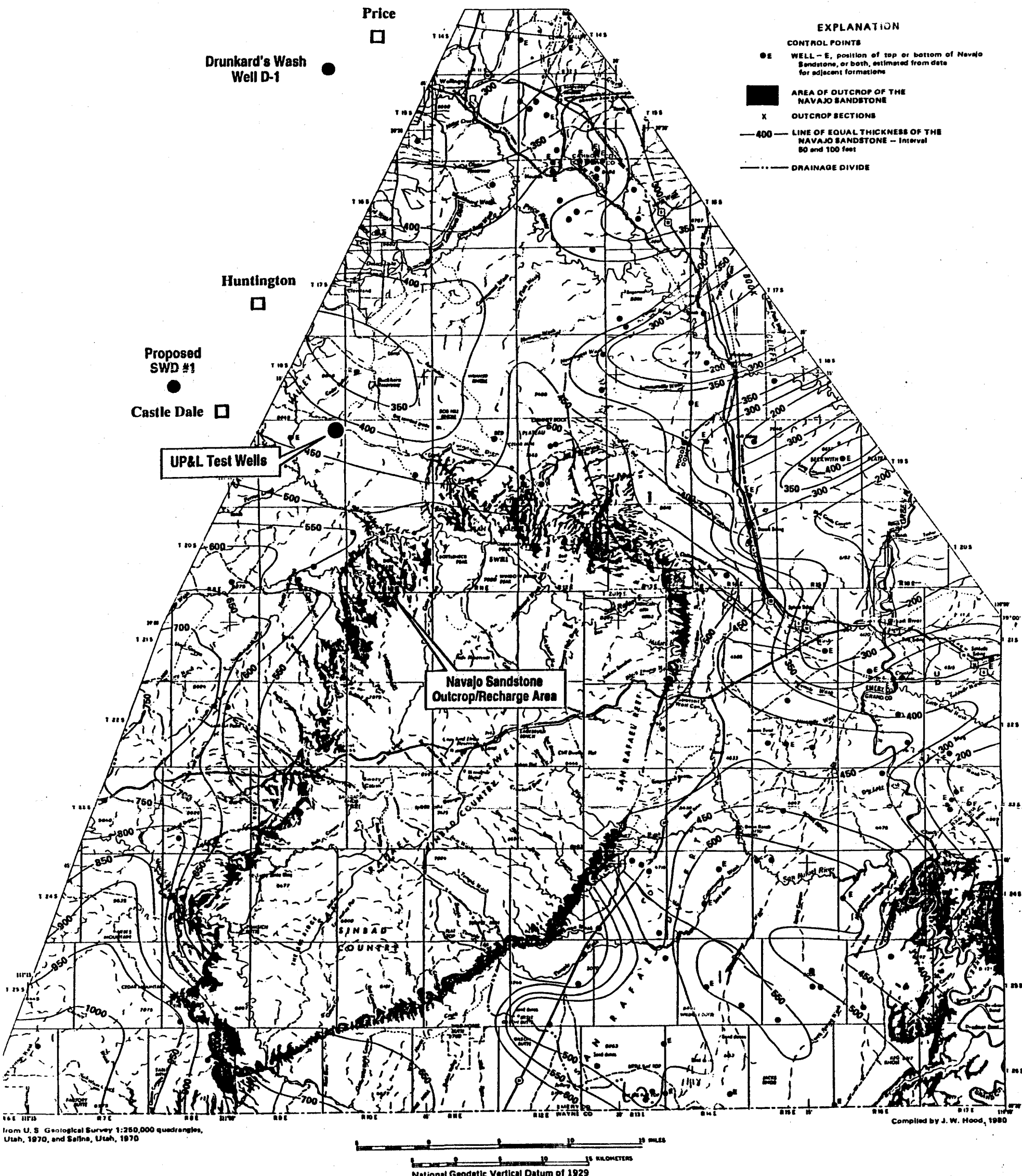
A handwritten signature in black ink, appearing to read "J.D. Garr". The signature is stylized with a large, sweeping initial "J" and "D".

John D. Garr, R.G.  
Senior Hydrogeologist

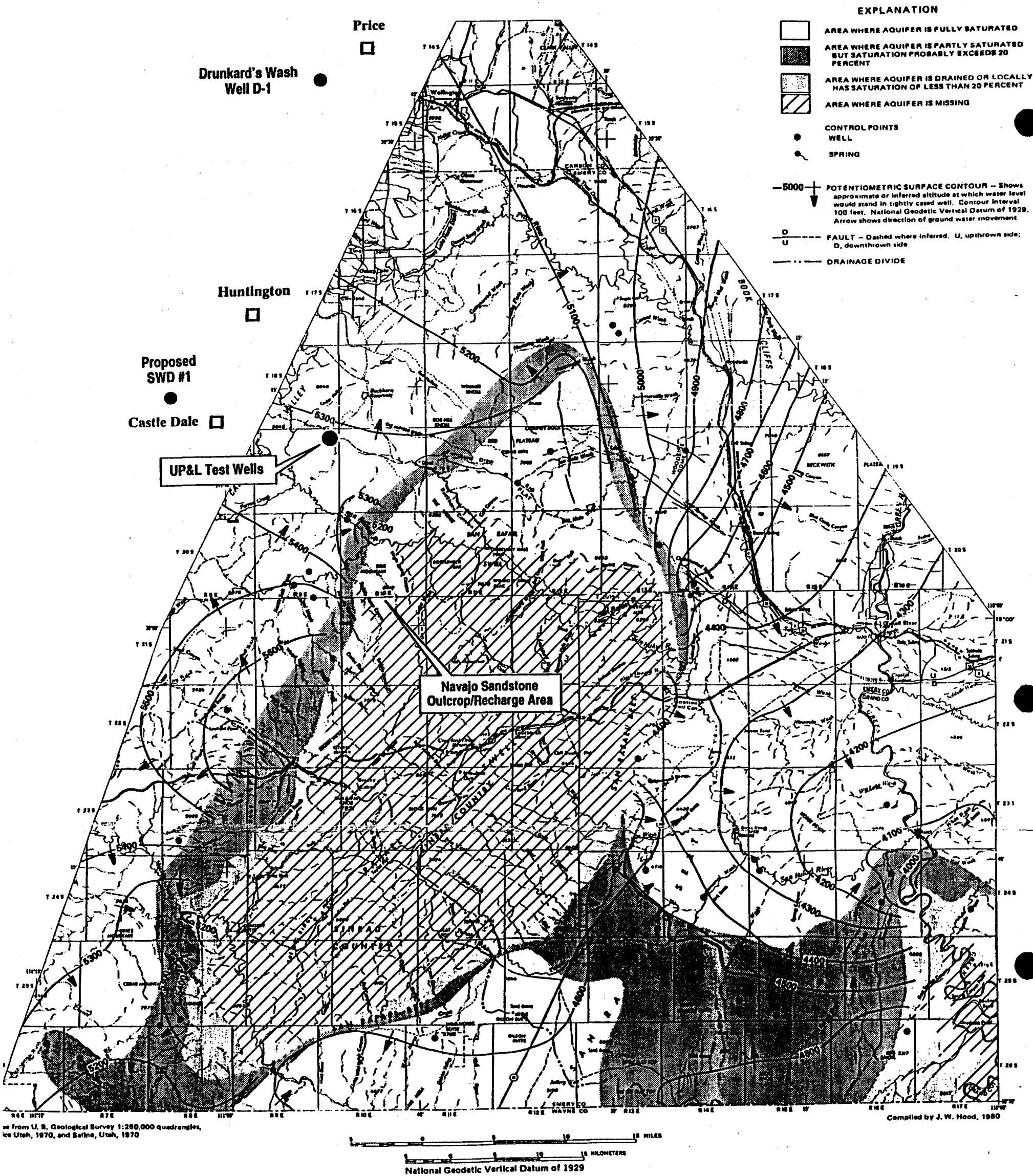
Attachments: Figure 1  
Figure 2

## REFERENCES CITED

- Freeze, R.A., and Cherry, J.A., 1979. Groundwater: Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 604 p.
- Hood, J.W., and Danielson, T.W., 1979. Aquifer tests of the Navajo Sandstone near Caineville, Wayne County, Utah: State of Utah Department of Natural Resources Division of Water Rights Technical Publication No. 66, 69 p.
- Hood, J.W., and Patterson, D.J., 1984. Bedrock aquifers in the northern San Rafael Swell area, Utah, with special emphasis on the Navajo Sandstone: State of Utah Department of Natural Resources Division of Water Rights Technical Publication No. 78, 128 p. text, 5 plates.
- Weiss, E., 1987. Groundwater flow in the Navajo Sandstone in parts of Emery, Grand, Carbon, Wayne, Garfield, and Kane counties, southeast Utah: U.S. Geological Survey Water-Resources Investigations Report 86-4012, 41 p.
- Witkind, I.J., 1988. Geologic map of the Huntington 30' x 60' quadrangle, Carbon, Emery, Grand, and Uintah Counties, Utah: U.S. Geological Survey Miscellaneous Investigations Series Map I-1764. 1:100,000-scale.
- Witkind, I. J., 1995. Geologic map of the Price 1° x 2° quadrangle, Utah: U.S. Geological Survey Miscellaneous Investigations Series Map I-2462. 1:250,000-scale.



MAP SHOWING THICKNESS OF THE NAVAJO SANDSTONE IN THE NORTHERN SAN RAFAEL SWELL AREA, UTAH



MAP SHOWING THE APPROXIMATE POTENTIOMETRIC SURFACE FOR THE NAVAJO SANDSTONE AQUIFER IN THE NORTHERN SAN RAFAEL SWELL AREA, UTAH.



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Mike

Michael O. Leavitt  
Governor

Kathleen Clarke  
Executive Director

Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210

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801-538-5340

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801-538-7223 (TDD)

September 10, 2000

Texaco Exploration and Production  
3300 North Butler, Suite 100  
Farmington, New Mexico 87401

Re: Application for Class II Injection Permit, SWD #3 Well, Section 11, Township 18 South, Range 7 East, Emery County, Utah

Gentlemen:

Pursuant to Utah Admin. Code §R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code §R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Texaco Exploration & Production.
3. A casing-tubing annular pressure test will be required.
4. A step rate test will be performed, evaluated, and data submitted.
5. Water samples from the Navajo and compatibility test data submitted

If you have any questions regarding this approval or the necessary requirements, please contact Mike Hebertson at (801) 538-5333.

Sincerely,

John R. Baza  
Associate Director, Oil and Gas

er

cc: Dan Jackson, EPA  
Carbon County Commission

DIVISION OF OIL, GAS AND MINING  
UNDERGROUND INJECTION CONTROL PROGRAM

**PERMIT  
STATEMENT OF BASIS**

**Applicant:** Texaco Exp. & Prod., Inc.

**Well:** SWD #3

**Location:** T18S, R7E, S11, Emery Co., UT

**API:** 4301530303

**Ownership Issues:**

The well is located on lands purchased by the well operator. Affidavits of notification have been provided with the injection application.

**Well Integrity:**

20" conductor pipe set at 50'. 17-1/2" hole drilled to 306' for 13-3/8", 48#, H-40 casing set at 300' w/ 390 sacks of G 15.8 LBS/GAL cement circulated to surface. 12-1/4" hole drilled to 3,100' for 9-5/8", 36#, K-55 casing set at 3,014'. Shoe cemented w/ 470 sacks Hi-Lift & RFC 10-1 from 3,014' to 400 in stage #1 and from 400' to surface w/145 sacks G @15.8 LBS/GAL. 8-3/4" hole drilled to 7,620' for 7.0", 23#, N-80 casing set at 7,588'; shoe cemented w/ 278 sacks of G 15.8 LBS/GAL cement in stage #1 and with 525 sacks of G 14.2 LBS/GAL cement in stage #2 from the DV Tool @ 6530'. A cement mapping log was run. The top of cement was located at 3,750' where the pipe is essentially free. The bond in the zone 100' above the intended injection interval is ~80-99% bonded and shows better than 90% bond for 40 feet above the top perf. This should be adequate to prevent any upward migration of fluid between the 7" casing and the borehole wall. The 7.0" casing was perforated in the Triassic/Jurassic-age Navajo Sandstone from 7,077' to 7,452'. Tubing, 4-1/2", Duo-line 12.75 # was run into the well and a packer was set at 7,059'. **A casing-tubing annular pressure test will be required prior to commencement of injection.**

**Ground Water Protection:**

No reports of water encountered during drilling were and the SP on the electric logs does not provide sufficient data to determine if any fresh water zones were encountered and not reported, however the casing and cementing program for this well is designed such that the near surface USDW's are protected. Cottonwood Creek is a water course that is used by local communities but should not be impacted. Surface and intermediate casing and cement will adequately protect this resource. Other subsurface water is unlikely between the surface alluvium and

the Cretaceous-age Ferron Sandstone Member of the Mancos Shale. The Ferron Sandstone Member (including the coal measures) provides the produced (and injected) water. This is obtained from approximately 3,000' of depth and, in nearby production wells, has shown an average total dissolved solids (TDS) level of nearly 14,000 mg/l.

The Navajo Sandstone formation water at the subject well will be tested. Navajo water from other injection wells has been tested and shown to be in excess of 20,000 mg/l TDS from the 7,078'-7,162' in the perforated interval. The Navajo Sandstone is a known fresh water aquifer at many locations in the state. In the San Rafael Swell area, the quality of Navajo Sandstone ground water is generally higher nearer the outcrop and recharge areas and becomes poor with increased depth and distance from recharge [Utah State Department of Natural Resources (DNR) Technical Publication # 78]. This premise has been verified with samples taken from wells several miles further along the flow path to the north. The planned injection of Ferron Sandstone Member produced formation water into the Navajo Sandstone at this location will result in the dilution of the more saline Navajo Sandstone formation water.

The proposed operation is expected to have little effect on the overall hydrology of the aquifer because of its great extent compared to the volume of fluid that will likely be injected. According to DNR Technical Publication #78, the Navajo Sandstone contains approximately 94,000,000 acre-feet of water in transient storage. Injection at a rate of 15,000 barrels per day for 10 years would result in 6,506 acre-feet being injected. This equates to about 0.007% of the water already in storage in the Navajo Sandstone. The Texaco measured bottom hole pressure in the SWD #1 (2,618 psig @ 7,000' in April of 1997) had a 139 psig differential as compared to the SWD #2 (2,757 psig @ 7,050 feet in November of 1997). Some of the increased pressure at the SWD #2 location could be attributable to injection in the SWD #1 and it is expected that reservoir interference between the wells will occur over time. SWD #1 has been injecting for over three years and injection has taken place in SWD #2 for over 2 years.

It has been concluded, after reviewing applicable information including the application submitted by Texaco, that injection into the Navajo Sandstone at this location would result in some dilution of the saline water present in the aquifer and a pressure increase near the well which would dissipate after injection ceases. No long term negative impacts are anticipated as a result of injection of produced water into the subject well.

#### **Oil/Gas & Other Mineral Resources Protection:**

The Ferron coal/gas zone is protected by tubing, two strings of casing and cement. No other known potentially producible zones were encountered by the well. The injection zone is isolated some 4,000' below the productive interval.



A review of the well records of the Division of Oil, Gas and Mining for the half mile radius of review indicated that there are no nearby deep wells in the half mile review area.

**Bonding:**

Texaco has an \$80,000 surety bond in place which provides coverage for this well.

**Actions Taken and Further Approvals Needed:**

Notice of this application was published in the Salt Lake Tribune, Deseret News and Emery County Progress. In addition, copies of the notice were provided to the EPA, Emery County Public Lands, and Texaco. Any future injection into a formation other than the Navajo Sandstone will require administrative approval after appropriate sampling and testing.

A properly designed and constructed injection well, combined with periodic mechanical integrity tests, poses no threat to fresh or useable groundwater supplies. The Division staff recommends approval of this application contingent upon no additional or unforeseen information being presented which changes our analysis.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): K. Michael Hebertson Date: 10-September-2000

**Recommended Conditions of Approval:**

- 1. A casing-tubing annular pressure test will be required prior to commencement of injection.**
- 2. A step rate test will be performed and data submitted for analysis prior to final approval for injection.**
- 3. Water samples from the Navajo and compatibility test are required for final approval.**

**R649-5-2. Requirements For Class II Injection Wells Including Water Disposal, Storage And Enhanced Recovery Wells.**

1. Injection wells shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.

2. The application for an injection well shall include a properly completed UIC Form 1 and the following:

2.1. A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.

2.2. Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.

2.3. A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.

2.4. Copies of logs already on file with the division should be referenced, but need not be refiled.

2.5. A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.

2.6. A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.

2.7. Standard laboratory analyses of (1) the fluid to be injected, (2) the fluid in the formation into which the fluid is being injected, and (3) the compatibility of the fluids.

2.8. The proposed average and maximum injection pressures.

2.9. Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

2.10. Appropriate geological data on the injection interval and confining beds, including the geologic name, lithologic description, thickness, depth, and lateral extent; also information relative to geologic structure near the proposed well which may effect the conveyance and/or storage of the injected fluids.

2.11. A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.

2.12. An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.

2.13. Any other additional information that the board or division may determine is necessary to adequately review the application.

COMMENTS UIC 258.1

2. OKAY

2.1 OKAY

2.2 OKAY

2.3 OKAY

2.4 LOGS WITH UIC FILING.

2.5 OKAY STEP RATE TEST IS NEEDED

2.6 OKAY

2.7. TO BE SUPPLIED

2.8 OKAY

2.9. OKAY

2.10 OKAY

2.11 OKAY

2.12 OKAY

AFFIDAVIT OF PUBLICATION

RECEIVED

JUN 16 2000

DIVISION OF  
OIL, GAS AND MINING

STATE OF UTAH)

SS.

County of Emery,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 13th day of June, 2000 and that the last publication of such notice was in the issue of such newspaper dated the 13th day of June, 2000.



Kevin Ashby - Publisher

Subscribed and sworn to before me this 13th day of June, 2000.



Notary Public My commission expires January 10, 2003 Residing at Price, Utah

Publication fee, \$ 52.00

**BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES**

**STATE OF UTAH  
NOTICE OF AGENCY ACTION  
CAUSE NO. UIC-258**

IN THE MATTER OF THE APPLICATION OF FOR ADMINISTRATIVE APPROVAL OF THE SWD #3 WELL LOCATED IN SECTION 11 TOWNSHIP 18 South, RANGE 7 East, S.L.M., Emery COUNTY, UTAH, AS A CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (The "Division") is commencing an informal adjudicative proceeding to consider the application of Texaco Exploration and Production, Inc. for administrative approval of the SWD #3 well, located in Section 11, Township 18 South, Range 7 East, Emery County, Utah, for a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

Selective zones in the Navaho Formation will be used for water injection. The maximum requested injection pressure and rate will be determined on each individual well based on fracture gradient information submitted by Texaco Exploration and Production, Inc..

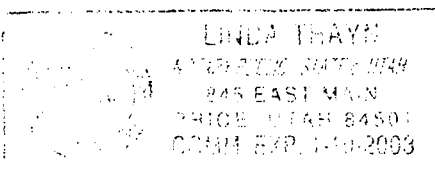
Any person desiring to object to the application or otherwise intervene in the proceeding must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated the 9th day of June, 2000.

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING  
-s- John R. Baza

Associate Director, Oil & Gas

Published in the Emery County Progress June 13, 2000.





Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

September 6, 2000

Ms. Lisha Cordova  
State of Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: State Form 9  
SWD 3  
API No. 43-015-30303**

Dear Lisha:

Please find State of Utah Division of Oil and Gas and Mining Sundry Notices and Reports on Wells Form 9 for the above referenced well for the "completion" portion of the above referenced well.

Thank you for your time and consideration. Please feel free to contact Ian Kephart or myself at the above number if you have any questions.

Sincerely,

Roger D. Johnson  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

cc: BLM, Moab  
Farmington well file

**RECEIVED**

SEP 11 2000

DIVISION OF  
OIL, GAS AND MINING

STATE OF UTAH  
DIVISION OF OIL AND GAS AND MINING

# CONFIDENTIAL

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.)

1. Type of Well ☐ OIL WELL ☐ GAS WELL ☒ OTHER Disposal

2. Name of Operator  
TEXACO EXPLORATION & PRODUCTION, INC.

3. Address and Telephone Number:

3300 N. Butler Ave, Ste100 Farmington NM 87401 325-4397

Location of Well

Footages: 1669' North 993' East

QQ, Sec.T.,R.,M: SE , NE , 11 , T18S , R7E

5. Lease Designation and Serial Number:  
FEE

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:  
FEE SWD #3

9. API Well Number:  
43-015-30303

10. Field and Pool, or Wildcat:  
WILDCAT

County: EMERY

State: UT

### 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

#### NOTICE OF INTENT

(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> OTHER                   |   |

Approximate date work will start

#### SUBSEQUENT REPORT

(Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment                 | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair               | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans             | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection     | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat              | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> OTHER Completion |   |

Date of work completion

Report results of Multiple Completions and Recompletions to different reservoirs on Well COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

### 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to the work.)

8-16-00 - RU Schlumberger - perforate 7440 - 7452, 7384 - 7410, 7334 - 7364, 7263 - 7373, 7166 - 7781, and 7077 - 7150, 4 spf 90° phase, w 4/4" HEGS, in 11 runs - RD Schlumberger - SWIFN.

8-17-00 - TIH w/Baker RBP and packer, set RBP at 7500', pull up hole 15 jts and set pkr at 7044'.

8-18-00 - retrieving RBP at 7305, release pkr - RIH and set pkr at 7296, RU Dowell, test lines to 6600 psi, formation broke at 3451 psi - establish inj of 10.2 bpm at 4420 psi, acidize 7334' - 7452' with 159 bbls of 15% HCL and 600 1.1 sg sealer balls - avg rate 8 bpm, max rate 10.3 bpm, avg pressure 4500 psi, max 5400 psi, 5 min 1002 psi, 10 min 792 psi, 15 min 668 psi. Pull up hole and set RBP at 7305', pull hole and set pkr at 7044, test lines to 6400 psi, establish inj of 10 bpm at 4166 psi. Acidize 7077' - 7273', w/ 107 bbls of 15% HCL and 410 1.1 sg sealer balls, avg rate of 10.1 bpm, max rate 10.3 bpm, avg pressure 4100 psi, max pressure 4450 psi, ISIP 783 psi, 5 min 540 psi, 10 min 398 psi, 15 min 293 psi, release packer, lower tbq and packer to RBP. Reverse circulation, latch on to RBP - TOOH w/ pkr - SWIFN.

8-19-00- TIH w/bull plugged joint w/Northern Lights BHBP's inside, 2 - 4' perforated subs, Baker packer and 2-7/8" tbq, set pkr at 7021' w/tp at 7064' - RU Dowell, fill hole, pump at 1/4 bpm for 3 hor, press went from 78 psi to 586 psi, cls tbq valve, press tbq up against tbq valve. SWIFN - RD

13.

Name and Signature Roger Johnson  TITLE Eng. Assistant DATE 9/6/00

(This space for State use only)

# RECEIVED

SEP 11 2000

DIVISION OF  
OIL, GAS AND MINING



**Texaco Exploration  
and Production Inc.**  
Allen R. Davis - Manager

3300 N. Butler, Suite 100  
Farmington, NM 87401  
505 325 4397

September 25, 2000

Mr. Gil Hunt  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

**Subject:     Application for Injection Well – R649-5-2-2.7 and 2.8**  
Texaco E&P Inc. Salt Water Disposal Well - SWD #3  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Hunt:

Enclosed for your review is the standard fluid analysis and step-rate analysis for the subject Application for Injection. These two items are to be included with the original application sent on September 1, 2000.

Also on August 23, 2000, a casing-tubing annular pressure test was performed and recorded. The pressure chart for the test is enclosed.

If you have any questions or require additional assistance, please contact me at (505) 325-4397 ext. 11.

Sincerely,

Ian M. Kephart  
Production Engineer  
Farmington Operating Unit

Enclosures

**RECEIVED**

SEP 28 2000

DIVISION OF  
OIL, GAS AND MINING

**Texaco Exploration and Production Inc.  
3300 North Butler, Suite 100  
Farmington, New Mexico 87401  
(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.7**

Standard laboratory analyses of the fluid to be injected,  
the fluid in the formation into which the fluid is being injected,  
and the compatibility of the fluids.

**See attached lab reports.**

Samples of the Navajo formation water and the proposed injection water were sampled and analyzed. Breakdown of both waters is similar indicating compatibility. Langlier's Index for both waters is greater than zero, which indicates both waters are less corrosive.



To: Texaco Exploration & Production Inc  
Attn. Ian Kephart  
3300 N. Butler  
Farmington, NM 87401

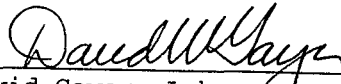
Date: 9/13/00

Group #: 39672  
Lab #: 00-U007799  
Project: SWD #3  
Sample Desc: SWD #3- Navajo Pfs.  
Sample Matrix: WATER  
Date/Time Sampled: 8/16/00 , 18:00  
Date/Time Received: 8/18/00 , 12:40

### CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING		DATE ANALYZED	METHOD	ANALYST
		LIMIT (MRL)				
INORGANIC PARAMETERS						
Alkalinity,as Bicarbonate, mg/L	2,290	1	8/25/00	12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 3	3	8/25/00	12:00	SM 2320B	TSM
Alkalinity,as Hydroxide, mg/L	< 3	3	8/25/00	12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	1,870	1	8/25/00	12:00	SM 2320B	TSM
Chloride, mg/L	2,320	10	8/30/00	14:00	EPA 325.3	TSM
Conductance, Specific, umhos/cm	12,300	1	8/24/00	9:45	EPA 120.1	MJB
Hardness, (calc), mg CaCO3/L	1,000	0.2	9/12/00		CAL	LH
Hardness Index: Very Hard Water						
Nitrate, Nitrogen, mg/L	< 1	1	8/28/00	11:30	EPA 353.1	EJB
Nitrite, Nitrogen, mg/L	< 0.005	0.005	8/18/00	18:00	EPA 354.1	LC
Nitrate+Nitrite-Total, mg/L	< 1	1	8/28/00	11:30	EPA 353.1	EJB
pH, units	7.6	0.1	8/18/00	13:00	EPA 150.1	LPS
pH Temperature,	25.0	0.01			EPA 150.1	
Specific Gravity, g/mL	1.016	0.005	8/29/00	10:00	EPA 1311	MJB
Sulfate, mg/L	2,940	1000	8/29/00	16:00	EPA 375.4	TSM

Approved By:

  
David Gayer, Laboratory Director

MRL = Report detection limit

Page 1

{generic.rpt}

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7378 FAX





Date: 9/13/00

To: Texaco Exploration & Production Inc  
Attn. Ian Kephart  
3300 N. Butler  
Farmington, NM 87401

Group #: 39672  
Lab #: 00-U007799  
Project: SWD #3  
Sample Desc: SWD #3- Navajo Pfs.  
Sample Matrix: WATER  
Date/Time Sampled: 8/16/00 , 18:00  
Date/Time Received: 8/18/00 , 12:40

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM		DATE	METHOD	ANALYST
		REPORTING				
		LIMIT	ANALYZED			
		(MRL)				
INORGANIC PARAMETERS						
Total Dissolved Solids, mg/L	9,100	250	8/21/00 15:45	EPA 160.1	LPS	
Calcium (T), as Ca, mg/L	350	2	8/29/00 15:19	EPA 200.7	JJT	
Iron (T), as Fe, mg/L	81	0.2	8/29/00 15:19	EPA 200.7	JJT	
Magnesium (T), as Mg, mg/L	31	0.2	8/23/00 13:37	EPA 200.7	JJT	
Potassium (T), as K, mg/L	170	0.5	8/23/00 13:37	EPA 200.7	JJT	
Sodium (T), as Na, mg/L	2,400	2	8/29/00 15:19	EPA 200.7	JJT	
<u>Corrosivity, Langlier's, CI</u>	1.98		9/13/00	CALC	LH	
Cation Sum, meq/L*	133.1		9/12/00		LH	
Anion Sum, meq/L*	164.2		9/12/00		LH	
% Cation/Anion Difference, %	10.50					
Temperature, Receiving, C	19.0		8/18/00 12:40		CSM	

→ More corrosive when Index = 0

Approved By:

*David Gayer*  
David Gayer, Laboratory Director

MRL = Report detection limit

Page 2

{generic.rpt}

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7378 FAX



Date: 9/13/00

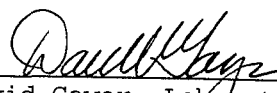
To: Texaco Exploration & Production Inc  
Attn. Ian Kephart  
3300 N. Butler  
Farmington, NM 87401

Group #: 39672  
Lab #: 00-U007800  
Project: SWD #3  
Sample Desc: Orangeville Prod. Wtr.  
Sample Matrix: WATER  
Date/Time Sampled: 8/17/00 , 7:00  
Date/Time Received: 8/18/00 , 12:40

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING		DATE ANALYZED	METHOD	ANALYST
		LIMIT				
		(MRL)				
INORGANIC PARAMETERS						
Alkalinity,as Bicarbonate, mg/L	7,880	1	8/25/00	12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 10	10	8/25/00	12:00	SM 2320B	TSM
Alkalinity,as Hydroxide, mg/L	< 10	10	8/25/00	12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	6,460	1	8/25/00	12:00	SM 2320B	TSM
Chloride, mg/L	1,460	5	8/30/00	14:00	EPA 325.3	TSM
Conductance, Specific, umhos/cm	12,600	1	8/24/00	9:45	EPA 120.1	MJB
Hardness, (calc), mg CaCO3/L	107	0.2	9/ 5/00		CAL	LH
Hardness Index: Moderately Hard Water						
Nitrate, Nitrogen, mg/L	< 0.1	0.1	8/28/00	11:30	EPA 353.1	EJB
Nitrite, Nitrogen, mg/L	< 0.005	0.005	8/18/00	18:00	EPA 354.1	LC
Nitrate+Nitrite-Total, mg/L	< 0.1	0.1	8/28/00	11:30	EPA 353.1	EJB
pH, units	7.4	0.1	8/18/00	13:00	EPA 150.1	LPS
pH Temperature,	25.0	0.01			EPA 150.1	
Specific Gravity, g/mL	1.004	0.005	8/29/00	10:00	EPA 1311	MJB
Sulfate, mg/L	< 5	5	8/29/00	16:00	EPA 375.4	TSM

Approved By:

  
David Gayer, Laboratory Director

MRL = Report detection limit

Page 4

{generic.rpt}

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7378 FAX



Date: 9/13/00

To: Texaco Exploration & Production Inc  
Attn. Ian Kephart  
3300 N. Butler  
Farmington, NM 87401

Group #: 39672  
Lab #: 00-U007800  
Project: SWD #3  
Sample Desc: Orangeville Prod. Wtr.  
Sample Matrix: WATER  
Date/Time Sampled: 8/17/00 , 7:00  
Date/Time Received: 8/18/00 , 12:40

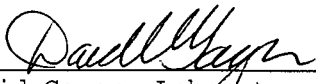
## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING		DATE ANALYZED	METHOD	ANALYST
		LIMIT	DATE			
		(MRL)				
INORGANIC PARAMETERS						
Total Dissolved Solids, mg/L	9,200	25	8/21/00	15:45	EPA 160.1	LPS
Calcium (T), as Ca, mg/L	23	0.2	8/23/00	13:37	EPA 200.7	JJT
Iron (T), as Fe, mg/L	0.91	0.02	8/23/00	13:37	EPA 200.7	JJT
Magnesium (T), as Mg, mg/L	12	0.2	8/23/00	13:37	EPA 200.7	JJT
Potassium (T), as K, mg/L	29	0.5	8/23/00	13:37	EPA 200.7	JJT
Sodium (T), as Na, mg/L	3,500	2	8/29/00	15:19	EPA 200.7	JJT
<u>Corrosivity, Langlier's, CI</u>	1.05		9/13/00		CALC	LH
Cation Sum, meq/L	155.2		9/ 5/00			LH
Anion Sum, meq/L	170.3		9/ 5/00			LH
% Cation/Anion Difference, %	4.66		9/ 5/00			LH
Temperature, Receiving, C	19.0		8/18/00	12:40		CSM

→ More corrosive when Index = 0

NOTE: Sample not received on ice.

Approved By:

  
David Gayer, Laboratory Director

MRL = Report detection limit

Page 5

{generic.rpt}

6100 SOUTH STRATLER  
SALT LAKE CITY UTAH 84107 6905  
801 262 7299 PHONE  
801 262 7378 FAX

**Texaco Exploration and Production Inc.**  
**3300 North Butler, Suite 100**  
**Farmington, New Mexico 87401**  
**(505) 325-4397**

**SWD #3**

**Requirements R649 - 5 - 2 - 2.8**

Proposed average and maximum injection pressures.

A maximum of 15,000 barrels of water per day at a maximum pressure of 1,750 psi.

**See attached Step-Rate test and Analysis.**

REPORT NO.  
SWD3

PAGE NO. 1

TEST DATE:  
18-AUG-2000

# STAR

## Schlumberger Transient Analysis Report Based on Model Verified Interpretation Of a Northern Lights Energy Well Test

Schlumberger

COMPANY: TEXACO COMPANY	WELL: SWD #3
TEST IDENTIFICATION Test Type ..... INJ./PFOT Test No. .... ONE	WELL LOCATION
COMPLETION CONFIGURATION Net Pay (ft) ..... 435	TEST STRING CONFIGURATION Gauge Depth (ft)/Type ..... 7064/ELECTRONIC
	TEST CONDITIONS Injection Time (hrs) ..... 3 Fall-Off Duration (hrs) ..... 59.8
INTERPRETATION RESULTS Model of Behavior ..... Homogeneous Fluid Type Used for Analysis.. Water Reservoir Pressure (psi) ..... 2932 Transmissibility (md.ft/cp) .. 2570 Effective Permeability (md) .. 2.5 (to Water) Skin Factor ..... 30 Radius of Investigation (ft).. 127	ROCK/FLUID/WELLBORE PROPERTIES GLR (scf/STB) ..... 0 Water Cut (%) ..... 100 Viscosity (cp) ..... 0.4165 Total Compressibility (1/psi).. 5.067E-06 Porosity (%) ..... 18.1 Reservoir Temperature (F) .... 157 Form.Vol.Factor (bbl/STB) .... 1.011

INJECTION RATE DURING TEST: 360 BWIPD

### COMMENTS:

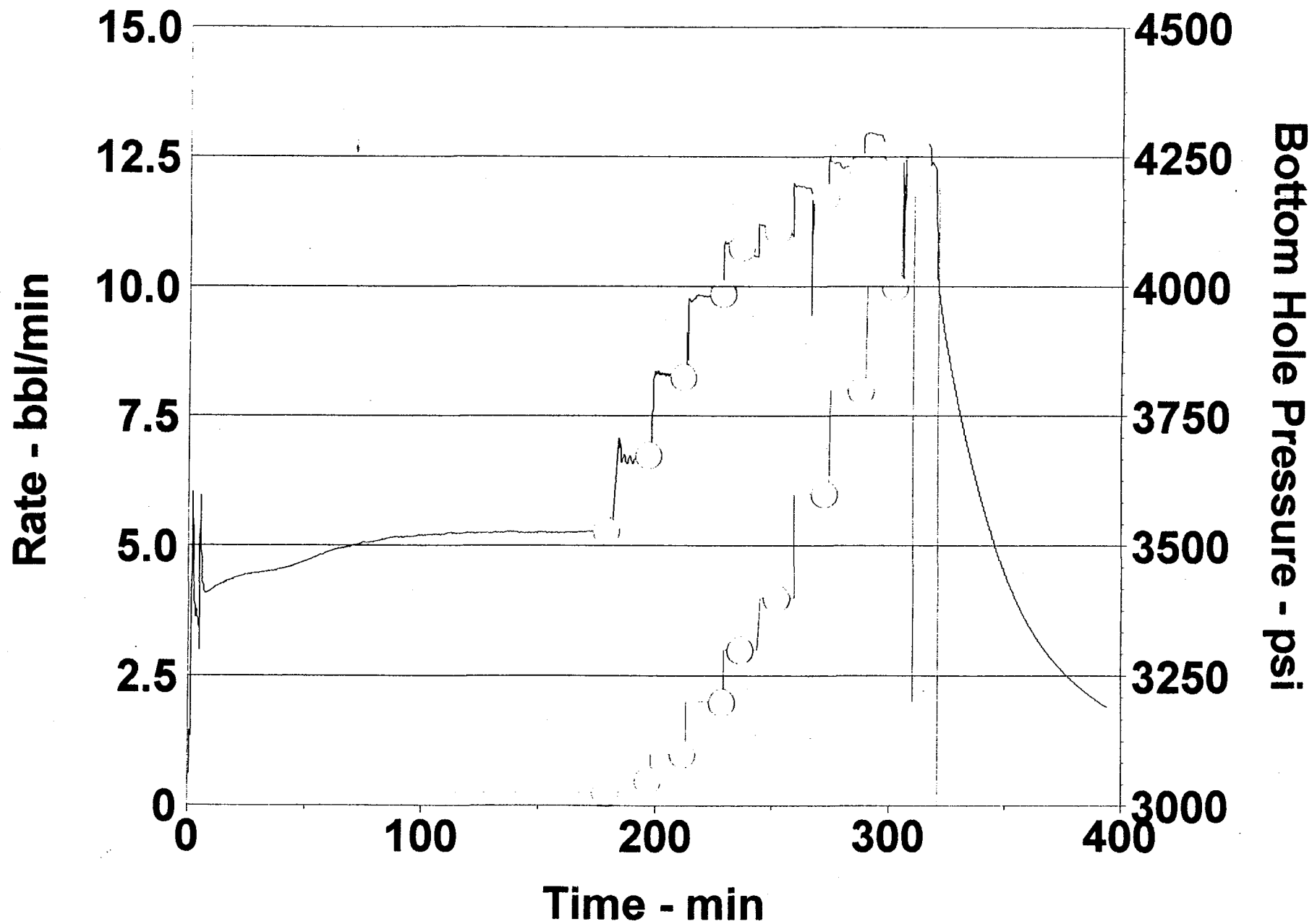
AN INJECTIVITY STEP-RATE AND PRESSURE FALL-OFF TEST WERE CONDUCTED BY NORTHERN LIGHTS ENERGY AND EVALUATED BY SCHLUMBERGER OILFIELD SERVICES TO DETERMINE THE ZONE'S CLOSURE PRESSURE, FRACTURE EXTENSION PRESSURE, AND RESERVOIR PARAMETERS OF RESERVOIR BEHAVIOR MODEL. TRANSMISSIBILITY (Kh/u), RESERVOIR PRESSURE AND SKIN. ANALYSIS OF THE DIAGNOSTIC LOG-LOG PLOT OF THE PRESSURE FALL-OFF PERIOD INDICATES THE PRESENCE OF A HOMOGENEOUS SYSTEM WITH SKIN AND VARIABLE WELLBORE STORAGE EFFECTS AT EARLY TIME AND TRANSITIONAL AND INFINITE ACTING RADIAL FLOW REGIME AT MID TO LATE TIMES.

THE FALL-OFF DATA WAS MATCHED USING A HOMOGENEOUS, INFINITE SYSTEM RESERVOIR MODEL WITH SKIN AND VARIABLE WELLBORE STORAGE (SEE ANALYSIS RESULTS AND PLOTS, PAGES 2-6). BASED ON THE MATCH, THE TESTED INTERVAL HAS THE CHARACTERISTICS OF FAIR EFFECTIVE PERMEABILITY TO WATER, WITH A SEVERELY DAMAGED WELLBORE CONDITION AT THE TIME OF THE FALL-OFF TEST. NO SEALING OR SUPPORTING OUTER BOUNDARIES WERE OBSERVED WITHIN THE 127-Ft RADIUS OF INVESTIGATION FOR THE TEST.

THE STEP-RATE INJECTIVITY ANALYSIS INDICATES CLOSURE PRESSURE FOR THE ZONE IS APPROXIMATELY 3540 PSIA AND FRACTURE EXTENSION PRESSURE IS APPROXIMATELY 4000 PSIA. QUESTIONS ABOUT THIS REPORT SHOULD BE DIRECTED TO DEBORA HALLFORD AT 303-843-9090.

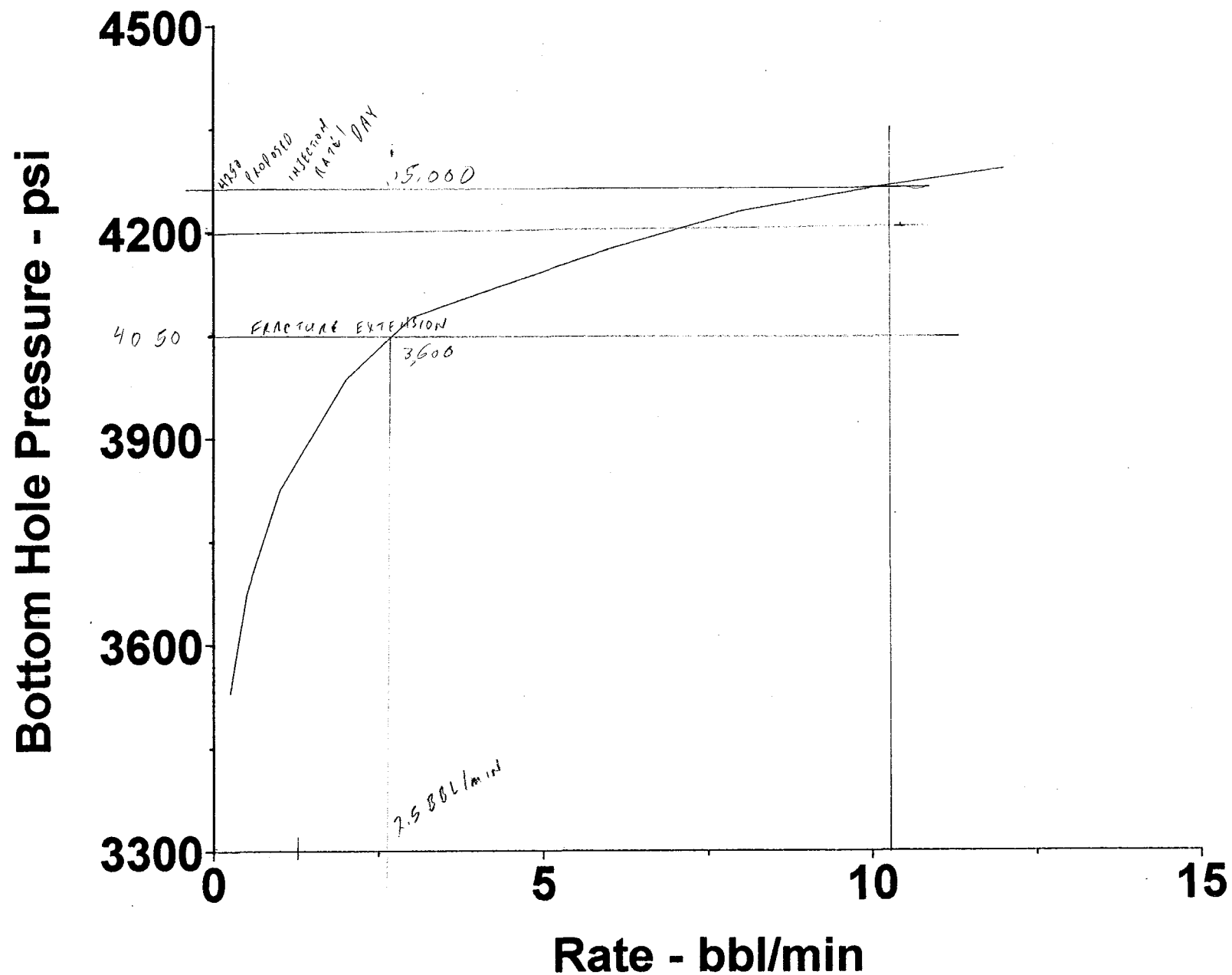


# SWD #3



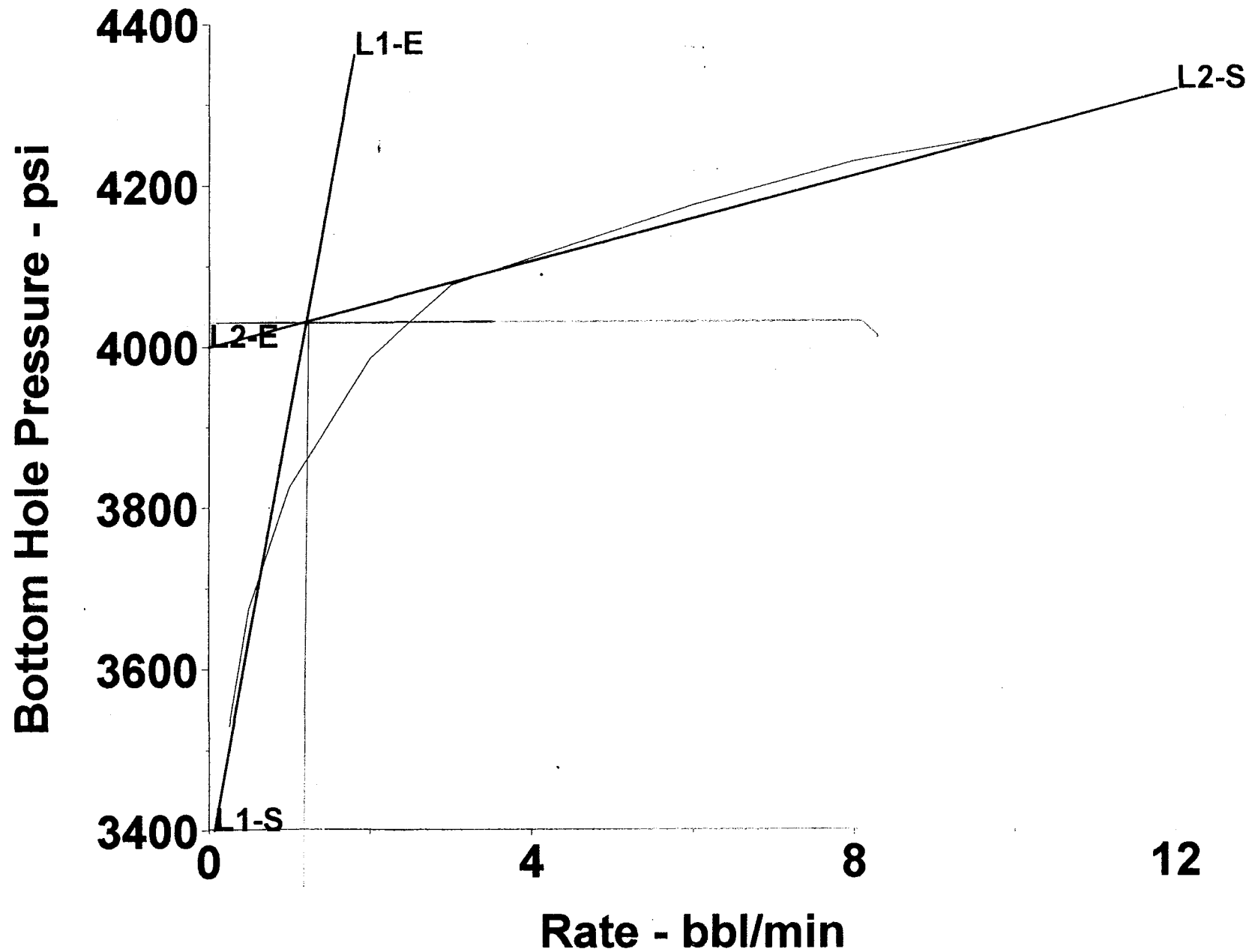


# Pressure vs. Rate Plot





# Pressure vs. Rate Plot





TUESDAY  
12 3

WEDNESDAY  
12 3

6 9 12 3 6

6 9 12

6 9 12

SUNDAY  
12 3 6

6 9 12

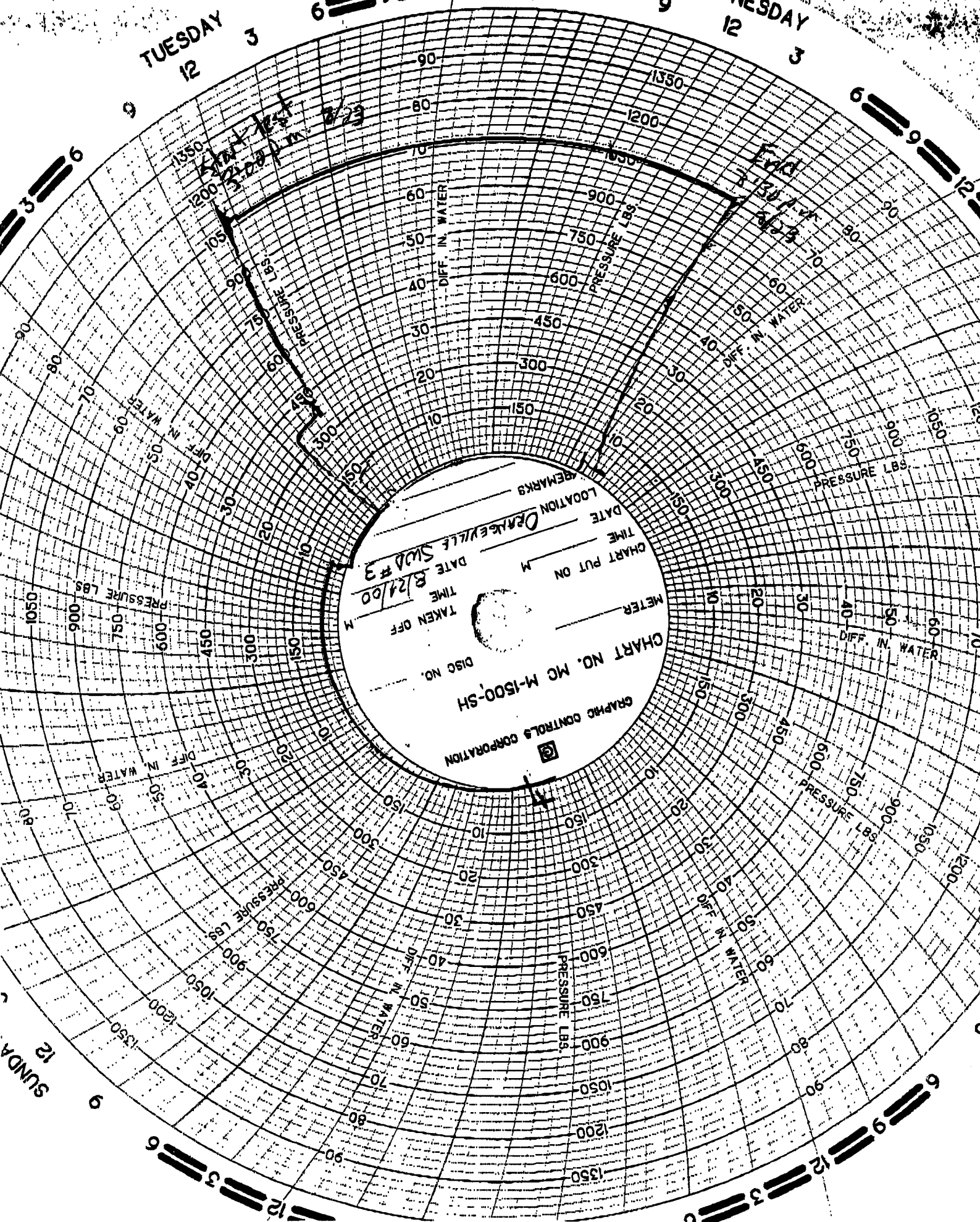


CHART NO. MC M-1500-SH  
GRAPHIC CONTROLS CORPORATION

DISC NO. \_\_\_\_\_

TAKEN OFF \_\_\_\_\_ M

TIME \_\_\_\_\_

DATE 8/24/00

CHART PUT ON \_\_\_\_\_ M

TIME \_\_\_\_\_

DATE \_\_\_\_\_

LOCATION OAKVILLE SWD #3

REMARKS \_\_\_\_\_

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Texaco Exploration & Production, Inc.  
Address: 3300 N. Butler  
city Farmington  
state NM zip 87401

Operator Account Number: N 5700

Phone Number: (505) 325-4397

Well 1

API Number	Well Name	QQ	Sec	Twp	Rng	County
30303-	SWD #3	SENE	11	18S	7E	Emery
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
A	99999	12915	5-30-00	5-30-00		
Comments: 43-015-30303-00-00 10-10-00						

**CONFIDENTIAL**

Well 2

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
Comments:						

Well 3

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
Comments:						

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

R. D. Johnson

Name (Please Print)

*R. D. Johnson*  
Signature

EA Assistant

Title

10-3-00  
Date

**RECEIVED**

OCT 10 2000

DIVISION OF  
OIL, GAS AND MINING



Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

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OCT 17 2000

DIVISION OF  
OIL, GAS AND MINING

October 10, 2000

Ms. Carroll Daniels  
State of Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: State Form 8 – Well Completion Report**  
Well No. – 1-76 API- 43-015-30381  
3-75 API-43-015-30384  
34-80 API-43-015-30389  
34-82 API-43-015-30390  
SWD-3 API-43-015-30303

Dear Carroll:

Please find State of Utah Division of Oil and Gas and Mining Well Completion Reports on Wells Form 8 for the above referenced wells.

Thank you for your time and consideration. Please feel free to contact Ian Kephart – 505-325-4397 ext: 11 or myself at the above number if you have any questions.

Sincerely,

Roger D. Johnson  
Texaco Exploration and Production Inc.  
Farmington Operating Unit

cc: BLM, Moab  
Farmington well file

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8  
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <u>Disposal</u>						5. LEASE DESIGNATION AND SERIAL NUMBER: Fee			
b. TYPE OF WORK: NEW <input checked="" type="checkbox"/> HORIZ <input type="checkbox"/> DEEP <input type="checkbox"/> RE <input type="checkbox"/> DIFF <input type="checkbox"/>						6. IF INDIAN, ALLOTTEE OR TRIBE NAME			
2. NAME OF OPERATOR: Texaco Exploration & Production, Inc.						7. UNIT or CA AGREEMENT NAME			
3. ADDRESS OF OPERATOR: 3300 N Butler, Ste. 100 CITY Farmington STATE NM ZIP 87401						8. WELL NAME AND NUMBER: SWD #3			
4. LOCATION OF WELL (FOOTAGES): 1669' FNL & 993' FEL						9. API NUMBER: 4301530303			
AT TOP PRODUCING INTERVAL REPORTED BELOW:						10. FIELD AND POOL, OR WILDCAT Wildcat			
AT TOTAL DEPTH:						11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 11 18S 7E			
14. DATE SPUDDED: 5/30/2000						15. DATE T.D. REACHED: 7/9/2000		16. DATE COMPLETED: ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>	
17. ELEVATIONS (DF, RKB, RT, GL): 6254' GL									
18. TOTAL DEPTH: MD 7,593		19. PLUG BACK T.D.: MD 7,593		20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD 7,305		22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) CBL/CL/GR-8-30-00 CNLD/GR, PE/AI/GR-7-12-00	
TVD		TVD				TVD		23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit copy)	
24. CASING AND LINER RECORD (Report all strings set in well)									
HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
26"	20"	Conductor	0	50					
17-1/2"	13-3/8 H40	48#"	0	305	305	"G" 375		Surface	Circulated
12-1/4"	9-5/8 K55	36#"	2,500	3,014	3,014 RFC10-1 150			2500	CBL
12-1/4"	9-5/8 K55	36#"	0	600	600 RFC10-1 175			Surface	Circulated
8-3/4"	7" N80	23#"	6,500	7,593	7,593	"G" 225		6500	CBL
8-3/4"	7" N80	23#"	0	6,500	6,500 50/50 Poz 775			Surface	Circulated
25. TUBING RECORD									
SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2-7/8"	7,300	7,021							
26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) Navajo	7,077	7,300			7,077 7,150	.45"	4spf	Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)					7,166 7,181	.45"	4spf	Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)					7,263 7,273	.45"	4spf	Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)					7,334 7,364	.45"	4spf	Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.					7,384 7,410 .45" 4spf				
DEPTH INTERVAL					7,440 7,452 .45" 4spf				
7334'-7452'					159bbl 15% HCL + 600 1.1sg balls				
7077'-7273'					107bbl 15% HCL + 410 1.1sg balls				
29. ENCLOSED ATTACHMENTS:								30. WELL STATUS:	
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS				<input type="checkbox"/> GEOLOGIC REPORT		<input type="checkbox"/> DST REPORT		<input type="checkbox"/> DIRECTIONAL SURVEY	
<input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION				<input type="checkbox"/> CORE ANALYSIS		<input type="checkbox"/> OTHER:		I/pu BGH	

(5/2000)

(CONTINUED ON BACK)

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OCT 17 2000

DIVISION OF  
OIL, GAS AND MINING

## 31. INITIAL PRODUCTION

## INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

## INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

## INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

## INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

## 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

## 33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Bluegate Shale Ferron "A" Coal Navajo	

## 35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Roger D. JohnsonTITLE Engineering AssistantSIGNATURE DATE 10-10-00

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

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OCT 17 2000

DIVISION OF  
OIL, GAS AND MINING



Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

October 25, 2000

Ms. Lisha Cordova  
State of Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: State Form 8 – Well Completion – Amended Report**  
Well No. SWD 3

Dear Lisha,

As per your phone conversation on October 24<sup>th</sup> with Mr. Ian M. Kephart;

We are submitting State of Utah, Division of Oil, Gas and Mining, Form 8 – Well Completion  
**Amended Report** for Well – SWD #3 S. 11, T. 18S, R. 7E, Emery County, Utah

Thank you for your time and consideration. Please feel free to contact Ian Kephart – 505-325-4397 ext: 11 or myself at the above number if you have any questions.

Sincerely,

Roger D. Johnson

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OCT 30 2000

DIVISION OF  
OIL, GAS AND MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☒ FORM 8  
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <u>Disposal</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>FEE</b>
b. TYPE OF WORK: NEW <input checked="" type="checkbox"/> HORIZ. <input type="checkbox"/> DEEP- <input type="checkbox"/> RE- <input type="checkbox"/> DIFF. <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR: <b>Texaco Exploration &amp; Production, Inc.</b>		7. UNIT or CA AGREEMENT NAME
3. ADDRESS OF OPERATOR: <b>3300 N. Butler</b> CITY <b>Farmington</b> STATE <b>NM</b> ZIP <b>87401</b>		8. WELL NAME and NUMBER: <b>SWD #3</b>
PHONE NUMBER: <b>(505) 325-4397</b>		9. API NUMBER: <b>4301530303</b>
4. LOCATION OF WELL (FOOTAGES) <b>1669' FNL, 993' FEL</b>		10. FIELD AND POOL, OR WILDCAT <b>WILDCAT</b>
AT TOP PRODUCING INTERVAL REPORTED BELOW:		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SESE 11 18S 7E</b>
AT TOTAL DEPTH:		12. COUNTY <b>EMERY</b>
		13. STATE <b>UTAH</b>

14. DATE SPUDDED: <b>5/30/2000</b>	15. DATE T.D. REACHED: <b>7/9/2000</b>	16. DATE COMPLETED: <b>7/9/2000</b>	ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL): <b>6254 GL</b>
18. TOTAL DEPTH: MD <b>7,593</b> TVD	19. PLUG BACK T.D.: MD <b>7,593</b> TVD	20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD <b>7,305</b> PLUG SET: TVD
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) <b>CBL, CNL, GR, DENSITY, ARRAY INDUCTION - 7-19-00</b> <b>8-30-00</b>				23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
26"	20"	Conductor	0	50					
17 1/2"	133/8 H40	48#	0	305		G 375		Surface	Circulated
12 1/4"	95/8 K55	36#	0	3,014		H-RCF 470		Surface	Circulated
8 3/4"	7" N80	23#	0	7,593		G 278		6500'	CBL
					6,500	G 525		5770'	CBL

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4 1/2"	7,054	7,054						

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Navajo	7,077	7,300			7,077 7,150	.45"	4 SPF	Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(B)					7,166 7,181	.45"	4 SPF	Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)					7,263 7,273	.45"	4 SPF	Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)					7,334 7,364	.45"	4 SPF	Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7334' - 7452'	159 bbl 15% HCL + 600 1.1sg balls
7077' - 7273'	107 bbl 15% HCL + 410 1.1sg balls

29. ENCLOSED ATTACHMENTS:

- |   |  |                                     |   |
|---|--|-------------------------------------|---|
| <input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS                         | <input type="checkbox"/> GEOLOGIC REPORT | <input type="checkbox"/> DST REPORT | <input type="checkbox"/> DIRECTIONAL SURVEY |
| <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION | <input type="checkbox"/> CORE ANALYSIS   | <input type="checkbox"/> OTHER:     |   |

30. WELL STATUS:

*Disposal Well*  
*Inactive per BGH*

## 31. INITIAL PRODUCTION

## INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

## INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

## INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

## INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

## 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

## 33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Bluegate Shale Ferron "A" Coal Navaio	

## 35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Roger JohnsonTITLE EASIGNATURE Roger JohnsonDATE 10-25-00

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

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DIVISION OF  
OIL, GAS AND MINING





Texaco Exploration  
and Production Inc.  
Denver Region

3300 North Butler  
Farmington, NM 87401  
505 325-4397

**FAX**

**DATE:** May 29, 2001

**TO:** Mike Hebertson, UDOGM  
Fax: (801) 359-3940

**FROM:** Ian Kephart, Texaco Inc.  
Phone: (505) 325-4397 x-105

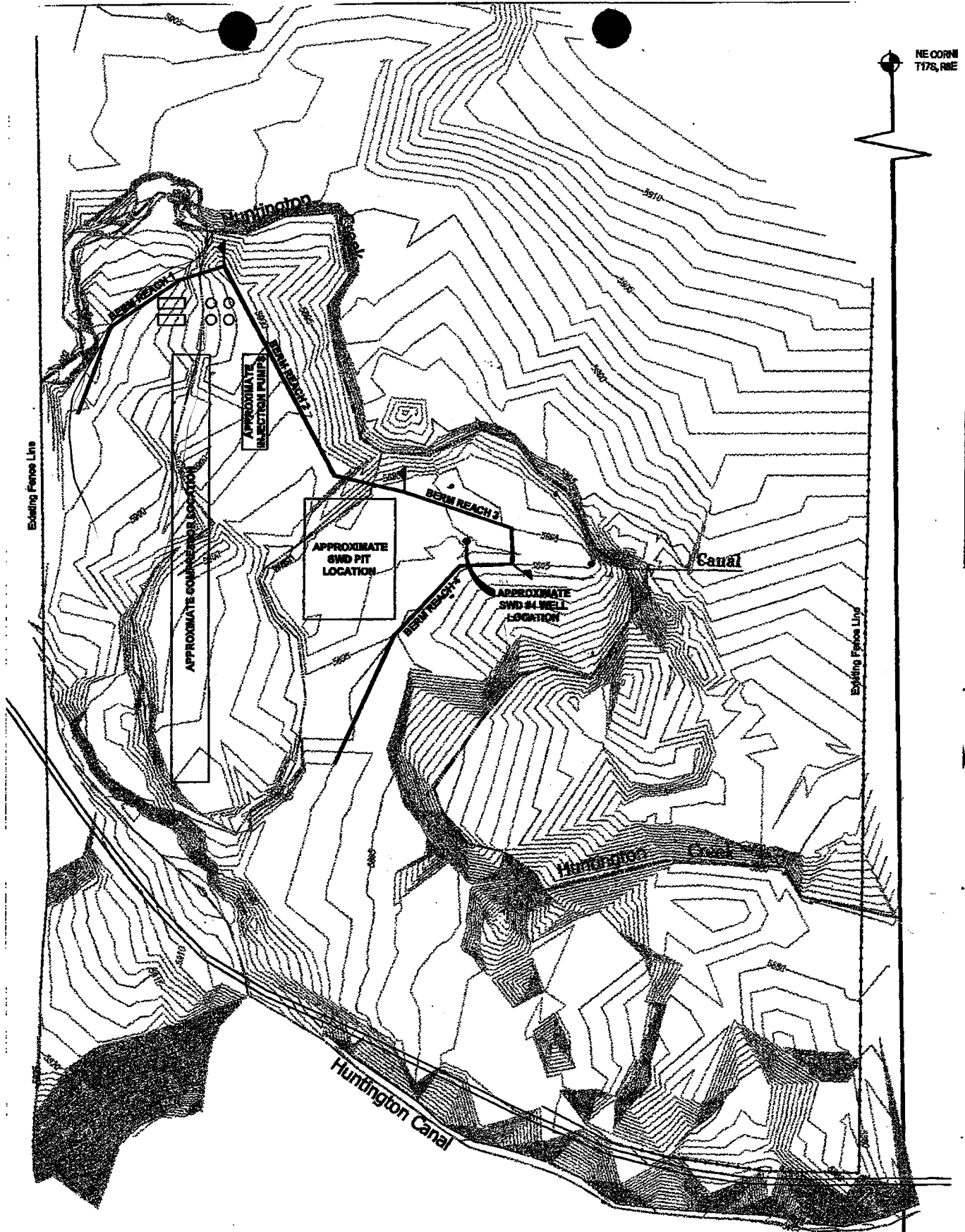
**SUBJECT:** Texaco E&P, Huntington Central Facility Draft Berm Design for 100 year flood event


Mike,

Page 1 is the draft drawing and Page 2 is the legend with the scale and table showing the elevation levels of both the 100 yr and 50 yr storm events. Please call me and let me know when you would be available for a conference call.

Thanks,

Ian Kephart



DRAWING TITLE		ENGINEERING RECORD		BY	DATE	PREPARED BY	 <b>SHEPHERD MILLER</b> INCORPORATED	PREPARED

(SECTION 15  
FOUND)

**LEGEND**

— BERM (APPROXIMATE LOCATION)

↑ REACH CHANGE LOCATION

BERM REACH	100 YR ELEV.	50 YR ELEV.
1	5906	5908
2	5904	5903
3	5902	5900
4	~5899	~5898

DRAFT



BASEMAP PROVIDED BY TALON RESOURCES, 03/03/01.

RED FOR

TITLE

PRELIMINARY BERM  
LOCATION

PROJECT: 100807

DATE: MAY 2001

DRAWN BY: SECTION: A

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: Texaco Exploration & Production, Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
3. ADDRESS OF OPERATOR: 3300 N. Butler CITY Farmington STATE NM ZIP 87401		7. UNIT or CA AGREEMENT NAME: n/a
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1669 FNL, 993 FEL		8. WELL NAME and NUMBER: SWD #3
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESE 11 18S 7E		9. API NUMBER: 4301530303
		10. FIELD AND POOL, OR WILDCAT: COUNTY: Emery STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

8-21-2001 - All work on SWD #3 has temporarily ceased. Texaco Exploration & Production does not plan to pursue the process for Application for Injection Well for this well.

The tentative plan is to 1) Change Well Name, 2) Convert Well Type to a Ferron producing well.

Date of work is scheduled for later part of 2002.

Notice of Intent, Subsequent Sundry Reports, and Well Recompletion Reports will follow as work commences.

RECEIVED

AUG 27 2001

DIVISION OF  
OIL, GAS AND MINING

NAME (PLEASE PRINT) Allen R. Davis

TITLE Operating Unit Manager

SIGNATURE *Allen R. Davis*

DATE 8/21/2001

(This space for State use only)

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
**FOR RECORD ONLY**



**Chevron**

**Chevron U.S.A. Production Company**  
Mid-Continent Business Unit  
P.O. Box 36366  
Houston, TX 77236  
Phone 713 754 2000

April 9, 2002

Mr. John Baza,  
Associate Director of Oil and Gas  
Utah Department of Natural Resources  
Division of Oil, Gas & Mining  
1594 W. North Temple St., Suite 1210  
Salt Lake City, UT 84114-5801

**RECEIVED**

APR 12 2002

DIVISION OF  
OIL, GAS AND MINING

Dear Mr. Baza:

As you may recall from our meeting last year, we planned to combine the assets of Chevron U.S.A. Inc. ("CUSA"), by merger, and Texaco Exploration and Production Inc. ("TEPI"), by assignment, into a new entity which we referred to as "Newco LP". Along the way, additional information came to light and it was decided that this proposed corporate restructure would not be preferable. Therefore, CUSA and TEPI have continued to operate as separate entities.

We are now planning a simpler restructuring process where TEPI will assign most of its assets/operatorship to CUSA effective May 1, 2002. We plan to use the existing CUSA bonds/letters of credit, operator identification numbers, etc., for the TEPI assets that will be assigned.

A task force of Land, Regulatory and Environmental Compliance personnel are finishing the work that was begun last year to assign TEPI's assets—using the same forms and procedures as before. We have "new faces" in this task force due to reassignments and departures. In some cases, it may be worthwhile to visit you and your staff in person where new people are involved or if we need to review/clarify your forms and procedures. Otherwise, we will endeavor to complete the work to assign TEPI's assets/operatorship to CUSA and deliver the requisite materials to you in a timely manner.


During discussions last year, our focus was on Land, Regulatory and Environmental matters. The Finance organization also desires to join in this effort. For State Tax, Royalty and Regulatory reporting purposes (applicable to production from May 2002 through December 2002), we intend to generate two reports and two payments.



However, the reporting company name and identification number will be CUSA's. Beginning with January 2003 production and thereafter, we will issue only one CUSA report and payment. We trust this plan meets with your approval. Any questions or comments should be directed to Rick Dunlavy (telephone 713/752-7411, rickdunlavy@chevrontexaco.com).

We appreciate the cooperation and guidance you provided us in the past, and we look forward to bringing these efforts to a conclusion.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Don R. Sellars".

Don R. Sellars

Sr. Environmental Specialist

Chevron U.S.A. Inc.  
 Midcontinent Business Unit  
 Ferron Operations  
 Emery County, Utah

Name / Operatorship Change  
 Texaco Exploration and Production Inc.  
 to  
 Chevron U.S.A. Inc.  
 Disposal Wells

Account Number	Section	Township	Range	API Number	Well Name	Lease Type	Well Status Main	Well Type Main	Fed or State
N5700	15	170S	080E	4301530490	SWD 4	4	APD	WD	FEE
N5700	11	180S	070E	4301530303	SWD 3	4	I	WD	FEE
N5700	14	180S	070E	4301530323	SWD 2	4	A	WD	FEE
N5700	24	180S	070E	4301530272	SWD 1	4	A	WD	FEE
N5700	23	18S	080E	4301530510	SWD 5	4	I	WD	FEE

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER Operator Name Change

2. NAME OF OPERATOR:

Chevron U.S.A. Inc.

3. ADDRESS OF OPERATOR:

P.O. Box 36366

CITY Houston

STATE TX

ZIP 77236

PHONE NUMBER:

(281) 561-3443

4. LOCATION OF WELL

FOOTAGES AT SURFACE: See Attached List of Wells

COUNTY: Emery

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

5. LEASE DESIGNATION AND SERIAL NUMBER:

See Attached List of Wells

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

BLM & State of Utah

7. UNIT or CA AGREEMENT NAME:

Orangeville & Huntington

8. WELL NAME and NUMBER:

See Attached List of Wells

9. API NUMBER:

10. FIELD AND POOL, OR WILDCAT:

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION



NOTICE OF INTENT  
(Submit in Duplicate)

Approximate date work will start:



SUBSEQUENT REPORT  
(Submit Original Form Only)

Date of work completion:



ACIDIZE



ALTER CASING



CASING REPAIR



CHANGE TO PREVIOUS PLANS



CHANGE TUBING



CHANGE WELL NAME



CHANGE WELL STATUS



COMMINGLE PRODUCING FORMATIONS



CONVERT WELL TYPE



DEEPEN



FRACTURE TREAT



NEW CONSTRUCTION



OPERATOR CHANGE



PLUG AND ABANDON



PLUG BACK



PRODUCTION (START/RESUME)



RECLAMATION OF WELL SITE



RECOMPLETE - DIFFERENT FORMATION



REPERFORATE CURRENT FORMATION



SIDETRACK TO REPAIR WELL



TEMPORARILY ABANDON



TUBING REPAIR



VENT OR FLARE\*



WATER DISPOSAL



WATER SHUT-OFF



OTHER: Operator Name Change (Merger)

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective May 1, 2002, Chevron U.S.A. Inc. is the new operator of the attached list of subject wells and leases that were previously operated by Texaco Exploration and Production Inc. The subject wells are located North of Orangeville and North of Huntington, Emery County, Utah. These Wells will be protected by the following surety bonds:

STATE OF UTAH Bond #: 103521627-0016 in the amount of \$80,000. (This bond will replace United Pacific Insurance Company bond number U89-75-80-0059. We respectfully request this bond be released and returned.)

BLM Nationwide Bond#: U89-75-81-0034 in the amount of \$300,000.

Key Contacts:

Ron Wirth - Operations Supervisor - 435 748-5395 x1

Texaco Exploration & Production Inc.

J. S. Purdy, Attorney-In-Fact

**RECEIVED**

MAY 06 2002

DIVISION OF  
OIL, GAS AND MINING

NAME (PLEASE PRINT)

Allen S. Robinson

TITLE

Attorney-In-Fact

SIGNATURE

Allen S. Robinson

DATE

April 30, 2002

(This space for State use only)



1. GLH ✓
2. CDW
3. FILE

### Designation of Agent

## X Merger

<b>FROM:</b> (Old Operator):	<b>TO:</b> ( New Operator):
TEXACO EXPLORATION & PRODUCTION INC	CHEVRON USA INC
Address: 3300 NORTH BUTLER, SUITE 100	Address: P O BOX 36366
FARMINGTON, NM 87401	HOUSTON, TX 79702
Phone: 1-(505)-325-4397	Phone: 1-(915)-687-2000
Account No. N5700	Account No. N0210

Unit:

**WELL(S)**

[illegible]

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 05/06/2002
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 04/12/2002
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 08/01/2002
4. Is the new operator registered in the State of Utah: YES Business Number: 564408-0143
5. If **NO**, the operator was contacted contacted on: N/A
6. (R649-9-2) Waste Management Plan received on: IN PLACE

**6. Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: N/A

---

7. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: N/A

---

8. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

---

9. **Underground Injection Control ("UIC")**

The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 08/05/2002

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**DATA ENTRY:**

1. Changes entered in the **Oil and Gas Database** on: 08/01/2002
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 08/01/2002
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

---

**STATE WELL(S) BOND VERIFICATION:**

1. State well(s) covered by Bond Number: N/A

---

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: N/A

---

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: N/A

---

**FEE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 103521627-0018
2. The **FORMER** operator has requested a release of liability from their bond on: N/A  
The Division sent response by letter on: N/A

---

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 08/01/2002

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**COMMENTS:**

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STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number SWD 3 Permit # UIC-258.1	API Number 4301530303
Location of Well Footage : 1669' FNL 993' FEL County : Emery QQ, Section, Township, Range: SENE 14 11S 7E State : UTAH	Field or Unit Name Buzzard Bench Lease Designation and Number

EFFECTIVE DATE OF TRANSFER: 8/17/2004

CURRENT OPERATOR

N0210

Company: Chevron U.S.A. Inc.  
Address: 11111 S. Wilcrest  
city Houston state Tx zip 77099  
Phone: (281) 561-4991  
Comments:

Name: Kenneth W. Jackson  
Signature: *Kenneth W. Jackson*  
Title: Regulatory Specialist  
Date:

NEW OPERATOR

N2615

Company: XTO ENERGY INC.  
Address: 2700 Farmington Ave. Bldg K. Suite 1  
city Farmington state NM zip 87401  
Phone: (505) 324-1090  
Comments:

Name: James L. Deaath  
Signature: *James L. Deaath*  
Title: Vice President-Land  
Date: 8/16/04

(This space for State use only)

Transfer approved by: *Dan H. Janni*  
Title: VIC Geologist

Approval Date: 9/28/04

Comments:

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

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1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: Various Leases
2. NAME OF OPERATOR: XTO ENERGY INC. <i>N2615</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 2700 Farmington Bldg K, Suite _____ Farmington STATE NM ZIP 87401		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: _____ QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____		8. WELL NAME and NUMBER: See attached list
PHONE NUMBER: (505) 324-1090		9. API NUMBER: Multiple
		10. FIELD AND POOL, OR WILDCAT: Buzzard Bench

COUNTY: Emery

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective August 1, 2004, the operator changed from Chevron U.S.A. Inc. to XTO ENERGY INC. for all wells on the attached list.

BLM #579173

State and Fee Bond #104312762

*Kenneth W. Jackson*

Kenneth W. Jackson Regulatory Specialist ChevronTexaco for Chevron U.S.A. Inc. *N0210*

NAME (PLEASE PRINT) <i>James L. Death</i>	TITLE <i>Vice President - Land</i>
SIGNATURE <i>James L. Death</i>	DATE <i>8/16/04</i>

(This space for State use only)

**APPROVED** *9/30/2004*

*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

(5/2000)

(See Instructions on Reverse Side)

RECEIVED

SEP 28 2004

DIV. OF OIL, GAS & MINING

API Well Number	Well Name	Well Type	County Name	Qtr/Qtr	Section	Twn-Rng
43-015-30242-00-00	L M LEMMON 10-1	Gas Well	EMERY	SESE	10	17S-8E
43-015-30243-00-00	FEDERAL B21-3	Gas Well	EMERY	NESW	21	19S-7E
43-015-30244-00-00	FEDERAL A26-2	Gas Well	EMERY	SESW	26	18S-7E
43-015-30245-00-00	FEDERAL C23-8	Gas Well	EMERY	NENW	23	18S-7E
43-015-30246-00-00	FEDERAL A26-4	Gas Well	EMERY	SWSE	26	18S-7E
43-015-30247-00-00	FEDERAL A35-6	Gas Well	EMERY	NWNW	35	18S-7E
43-015-30248-00-00	FEDERAL A35-5	Gas Well	EMERY	NWNE	35	18S-7E
43-015-30249-00-00	FEDERAL A34-7	Gas Well	EMERY	NENE	34	18S-7E
43-015-30258-00-00	UTAH FED P 10-47	Gas Well	EMERY	NWNW	10	18S-7E
43-015-30259-00-00	A L JENSEN 27-9	Gas Well	EMERY	SESE	27	21S-6E
43-015-30268-00-00	ST OF UT T 36-10	Gas Well	EMERY	SWNE	36	16S-7E
43-015-30270-00-00	ST OF UT U 2-11	Gas Well	EMERY	NWNW	2	18S-7E
43-015-30272-00-00	SWD 1	Water Disposal Well	EMERY	SWNW	24	18S-7E
43-015-30274-00-00	UTAH FED S 8-46	Gas Well	EMERY	SESW	8	18S-7E
43-015-30275-00-00	UTAH FED R 9-45	Gas Well	EMERY	NWNE	9	18S-7E
43-015-30276-00-00	UTAH FED P 10-42	Gas Well	EMERY	NWNE	10	18S-7E
43-015-30277-00-00	UTAH FED P 10-43	Gas Well	EMERY	NWSE	10	18S-7E
43-015-30280-00-00	UTAH FED Q 4-44	Gas Well	EMERY	SESE	4	18S-7E
43-015-30282-00-00	UTAH FED D 34-12	Gas Well	EMERY	SESE	34	17S-7E
43-015-30285-00-00	UTAH FED D 35-13	Gas Well	EMERY	SWSW	35	17S-7E
43-015-30286-00-00	UTAH FED D 35-14	Gas Well	EMERY	NWNW	35	17S-7E
43-015-30287-00-00	UTAH FED D 35-15	Gas Well	EMERY	SWSE	35	17S-7E
43-015-30292-00-00	UTAH FED M 6-25	Gas Well	EMERY	SENE	6	17S-8E
43-015-30294-00-00	UTAH FED H 6-21	Gas Well	EMERY	SESW	6	20S-7E
43-015-30303-00-00	SWD 3	Water Disposal Well	EMERY	SENE	11	18S-7E
43-015-30306-00-00	ST OF UT U 2-48	Gas Well	EMERY	NWNE	2	18S-7E
43-015-30308-00-00	ST OF UT U 2-50	Gas Well	EMERY	NESW	2	18S-7E
43-015-30309-00-00	ST OF UT U 2-49	Gas Well	EMERY	NWSE	2	18S-7E
43-015-30310-00-00	L & M CURTIS 10-58	Gas Well	EMERY	SWSW	10	18S-7E
43-015-30311-00-00	ST OF UT X 16-66	Gas Well	EMERY	SENE	16	18S-7E
43-015-30312-00-00	ST OF UT X 16-65	Gas Well	EMERY	NWNE	16	18S-7E
43-015-30313-00-00	U P & L 14-53	Gas Well	EMERY	SESE	14	18S-7E
43-015-30314-00-00	U P & L 14-55	Gas Well	EMERY	NWNW	14	18S-7E
43-015-30315-00-00	U P & L 23-51	Gas Well	EMERY	SENE	23	18S-7E
43-015-30316-00-00	U P & L 24-57	Gas Well	EMERY	NWNW	24	18S-7E
43-015-30318-00-00	D & A JONES 15-68	Gas Well	EMERY	NENW	15	18S-7E
43-015-30319-00-00	D&D CURTIS 14-54	Gas Well	EMERY	SENE	14	18S-7E
43-015-30320-00-00	P & K PEACOCK 8-62	Gas Well	EMERY	SWNE	8	18S-7E
43-015-30321-00-00	PEACOCK TRUST 9-60	Gas Well	EMERY	NWSW	9	18S-7E
43-015-30323-00-00	SWD 2	Water Disposal Well	EMERY	NWNW	14	18S-7E
43-015-30324-00-00	R G NORRIS 14-40	Gas Well	EMERY	NESW	14	18S-7E
43-015-30325-00-00	L & M CURTIS 15-67	Gas Well	EMERY	NENE	15	18S-7E
43-015-30326-00-00	PEACOCK TRUST 8-61	Gas Well	EMERY	NESE	8	18S-7E
43-015-30327-00-00	PEACOCK 7-64	Gas Well	EMERY	NENE	7	18S-7E
43-015-30328-00-00	PEACOCK TRUST 8-63	Gas Well	EMERY	SENE	8	18S-7E
43-015-30329-00-00	D & A JONES 9-59	Gas Well	EMERY	SESE	9	18S-7E
43-015-30381-00-00	UTAH STATE 1-76	Gas Well	EMERY	NWNW	1	18S-7E
43-015-30382-00-00	UTAH STATE 36-78	Gas Well	EMERY	SWSW	36	17S-7E
43-015-30383-00-00	USA 3-74	Gas Well	EMERY	SESE	3	18S-7E
43-015-30384-00-00	USA 3-75	Gas Well	EMERY	NENE	3	18S-7E
43-015-30385-00-00	USA 11-70	Gas Well	EMERY	SWSE	11	18S-7E
43-015-30386-00-00	USA 11-71	Gas Well	EMERY	SWNE	11	18S-7E
43-015-30387-00-00	USA 11-72	Gas Well	EMERY	NWNW	11	18S-7E
43-015-30388-00-00	USA 11-73	Gas Well	EMERY	NWSW	11	18S-7E
43-015-30389-00-00	USA 34-80	Gas Well	EMERY	SENE	34	17S-7E
43-015-30390-00-00	USA 34-82	Gas Well	EMERY	SESW	34	17S-7E
43-015-30393-00-00	ST OF UT EE 06-138	Gas Well	EMERY	NENW	6	17S-9E
43-015-30396-00-00	ST OF UT AA 07-106	Gas Well	EMERY	NWNE	7	17S-8E
43-015-30437-00-00	ST OF UT BB 09-119	Gas Well	EMERY	SESW	9	17S-8E
43-015-30438-00-00	ST OF UT CC 10-124	Gas Well	EMERY	SENE	10	17S-8E
43-015-30439-00-00	ST OF UT DD 31-98	Gas Well	EMERY	NWSW	31	17S-8E
43-015-30440-00-00	FEDERAL T 27-85	Gas Well	EMERY	SENE	27	18S-7E
43-015-30441-00-00	UP&L 06-102	Gas Well	EMERY	NENW	6	17S-8E
43-015-30442-00-00	UP&L 06-104	Gas Well	EMERY	NESE	6	17S-8E
43-015-30443-00-00	WM S IVIE ET AL 09-118	Gas Well	EMERY	SWNE	9	17S-8E

API Well Number	Well Name	Well Type	County Name	Qtr/Qtr	Section	TwN-Rng
43-015-30444-00-00	ST OF UT BB 09-120	Gas Well	EMERY	NESE	9	17S-8E
43-015-30445-00-00	FEDERAL A 26-88	Gas Well	EMERY	SWNW	26	18S-7E
43-015-30446-00-00	FEDERAL A 35-89	Gas Well	EMERY	NWSW	35	18S-7E
43-015-30447-00-00	FEDERAL C 23-84	Gas Well	EMERY	NESW	23	18S-7E
43-015-30448-00-00	FEDERAL P 3-92	Gas Well	EMERY	SESW	3	18S-7E
43-015-30449-00-00	FEDERAL P 3-93	Gas Well	EMERY	SWNW	3	18S-7E
43-015-30450-00-00	FEDERAL T 21-94	Gas Well	EMERY	NENE	21	18S-7E
43-015-30451-00-00	FEDERAL T 22-69	Gas Well	EMERY	NENE	22	18S-7E
43-015-30452-00-00	FEDERAL T 22-83	Gas Well	EMERY	SWSE	22	18S-7E
43-015-30453-00-00	FEDERAL T 22-91	Gas Well	EMERY	NENW	22	18S-7E
43-015-30454-00-00	ST OF UT CC 10-123	Gas Well	EMERY	NWNW	10	17S-8E
43-015-30455-00-00	FEDERAL T 27-86	Gas Well	EMERY	SENE	27	18S-7E
43-015-30456-00-00	FEDERAL T 27-87	Gas Well	EMERY	SESE	27	18S-7E
43-015-30457-00-00	FEDERAL T 27-90	Gas Well	EMERY	NWSW	27	18S-7E
43-015-30458-00-00	ST OF UT FF 10-125	Gas Well	EMERY	NESW	10	17S-8E
43-015-30459-00-00	ST OF UT FF 11-129	Gas Well	EMERY	NWNW	11	17S-8E
43-015-30462-00-00	ST OF UT FF 11-130	Gas Well	EMERY	NWSW	11	17S-8E
43-015-30478-00-00	GARDNER TRUST ET AL 16-121	Gas Well	EMERY	NENE	16	17S-8E
43-015-30479-00-00	ST OF UT BB 05-107	Gas Well	EMERY	SENW	5	17S-8E
43-015-30480-00-00	ST OF UT BB 05-108	Gas Well	EMERY	NWSW	5	17S-8E
43-015-30481-00-00	ST OF UT BB 05-109	Gas Well	EMERY	SENE	5	17S-8E
43-015-30482-00-00	ST OF UT BB 05-110	Gas Well	EMERY	SWSE	5	17S-8E
43-015-30483-00-00	UP&L 06-103	Gas Well	EMERY	NESW	6	17S-8E
43-015-30484-00-00	AMERICA WEST GROUP ET AL 15-126	Gas Well	EMERY	NENW	15	17S-8E
43-015-30485-00-00	W H LEONARD ET AL 15-127	Gas Well	EMERY	NENE	15	17S-8E
43-015-30486-00-00	ROWLEY 08-111	Gas Well	EMERY	SENW	8	17S-8E
43-015-30490-00-00	SWD 4	Water Disposal Well	EMERY	SENE	15	17S-8E
43-015-30495-00-00	SEELEY 08-112	Gas Well	EMERY	NENE	8	17S-8E
43-015-30496-00-00	ST OF UT BB 08-113	Gas Well	EMERY	NWSE	8	17S-8E
43-015-30497-00-00	ST OF UT AA 07-105	Gas Well	EMERY	SWNW	7	17S-8E
43-015-30498-00-00	ST OF UT 01-97	Gas Well	EMERY	SENE	1	18S-7E
43-015-30499-00-00	ST OF UT GG 03-122	Gas Well	EMERY	SWSW	3	17S-8E
43-015-30500-00-00	ST OF UT HH 03-133	Gas Well	EMERY	SWSE	3	17S-8E
43-015-30501-00-00	SEELEY FARMS 09-117	Gas Well	EMERY	NWNW	9	17S-8E
43-015-30502-00-00	ST OF UT GG 15-128	Gas Well	EMERY	NWSW	15	17S-8E
43-015-30503-00-00	ST OF UT BB 04-116	Gas Well	EMERY	SWSE	4	17S-8E
43-015-30504-00-00	ST OF UT GG 04-115	Gas Well	EMERY	NESW	4	17S-8E
43-015-30505-00-00	BURNSIDE 14-132	Gas Well	EMERY	NWNE	14	17S-8E
43-015-30506-00-00	ST OF UT T 36-100	Gas Well	EMERY	NESE	36	16S-7E
43-015-30507-00-00	UT FED KK 01-140	Gas Well	EMERY	SENW	1	17S-7E
43-015-30508-00-00	ST OF UT II 36-96	Gas Well	EMERY	NWSE	36	17S-7E
43-015-30509-00-00	ST OF UT II 36-95	Gas Well	EMERY	NWNE	36	17S-7E
43-015-30510-00-00	SWD 5	Water Disposal Well	EMERY	SESE	23	17S-8E
43-015-30511-00-00	UP&L FED 01-101	Gas Well	EMERY	SENE	1	17S-7E
43-015-30520-00-00	ST OF UT SS 22-165	Gas Well	EMERY	NENE	22	17S-8E
43-015-30521-00-00	ZIONS FED 35-135R (RIG SKID)	Gas Well	EMERY	NESW	35	16S-7E
43-015-30528-00-00	ST OF UT 14-170	Gas Well	EMERY	SWSE	14	17S-8E
43-015-30529-00-00	CONOVER 14-171	Gas Well	EMERY	NWSW	14	17S-8E
43-015-30530-00-00	ST OF UT 36-139	Gas Well	EMERY	NWSW	36	16S-7E
43-015-30533-00-00	ST OF UT FO 02-186	Gas Well	EMERY	NENW	2	17S-8E
43-015-30549-00-00	ST OF UT JJ 03-160	Gas Well	EMERY	NWNW	3	17S-8E
43-015-30550-00-00	ST OF UT 36-138	Gas Well	EMERY	SWNW	36	16S-7E
43-015-30551-00-00	UT FED P 12-153	Gas Well	EMERY	NWNW	12	18S-7E
43-015-30552-00-00	ST OF UT CC 03-161	Gas Well	EMERY	SENE	3	17S-8E
43-015-30553-00-00	ST OF UT FO 02-188	Gas Well	EMERY	NWSW	2	17S-8E
43-015-30554-00-00	ST OF UT BB 04-158	Gas Well	EMERY	NENW	4	17S-8E
43-015-30555-00-00	ST OF UT BB 04-159	Gas Well	EMERY	SWNE	4	17S-8E
43-015-30556-00-00	MALONE 14-131	Gas Well	EMERY	SWNW	14	17S-8E
43-015-30559-00-00	UT FED KK 01-141	Gas Well	EMERY	SESE	1	17S-7E
43-015-30560-00-00	ST OF UT FO 02-189	Gas Well	EMERY	SWNE	2	17S-8E
43-015-30561-00-00	ST OF UT GG 15-184	Gas Well	EMERY	NWSE	15	17S-8E
43-015-30562-00-00	STATE OF UTAH "LL" 31-20	Gas Well	EMERY	NWNW	31	17S-8E
43-015-30566-00-00	ST OF UT "KK" 32-145	Gas Well	EMERY	NESE	32	16S-8E
43-015-30567-00-00	ST OF UT "KK" 32-144	Gas Well	EMERY	SWSW	32	16S-8E
43-015-30568-00-00	ST OF UT "AA" 18-153	Gas Well	EMERY	SESW	18	17S-8E

API Well Number	Well Name	Well Type	County Name	Qtr/Qtr	Section	Twn-Rng
43-015-30569-00-00	ST OF UT "AA" 07-146 -	Gas Well	EMERY	NESW	7	17S-8E
43-015-30570-00-00	ST OF UT "AA" 18-154	Gas Well	EMERY	NESE	18	17S-8E
43-015-30571-00-00	ST OF UT "AA" 17-156	Gas Well	EMERY	SWSE	17	17S-8E
43-015-30572-00-00	ST OF UT "AA" 18-149	Gas Well	EMERY	SENW	18	17S-8E
43-015-30573-00-00	ST OF UT "MM" 20-192	Gas Well	EMERY	SENW	20	17S-8E
43-015-30574-00-00	ST OF UT "MM" 20-193	Gas Well	EMERY	NENE	20	17S-8E
43-015-30575-00-00	ST OF UT MM 20-194	Gas Well	EMERY	NWSW	20	17S-8E
43-015-30576-00-00	ST OF UT AA 07-147	Gas Well	EMERY	SESE	7	17S-8E
43-015-30577-00-00	ST OF UT BB 08-148	Gas Well	EMERY	NWSW	8	17S-8E
43-015-30578-00-00	ST OF UT AA 18-150	Gas Well	EMERY	NWNE	18	17S-8E
43-015-30579-00-00	ST OF UT NN 19-157	Gas Well	EMERY	NENE	19	17S-8E
43-015-30580-00-00	ST OF UT AA 17-152	Gas Well	EMERY	NENE	17	17S-8E
43-015-30581-00-00	ST OF UT OO 16-190	Gas Well	EMERY	NESW	16	17S-8E
43-015-30582-00-00	ST OF UT PP 16-191	Gas Well	EMERY	NESE	16	17S-8E
43-015-30583-00-00	ST OF UT AA 17-151	Gas Well	EMERY	NENW	17	17S-8E
43-015-30585-00-00	ST OF UT MM 21-195	Gas Well	EMERY	NENW	21	17S-8E
43-015-30586-00-00	ST OF UT GG 21-163	Gas Well	EMERY	NENE	21	17S-8E
43-015-30587-00-00	ZIONS FED 35-137 -	Gas Well	EMERY	NESE	35	16S-7E
43-015-30589-00-00	UTAH FED 01-205D -	Gas Well	EMERY	SENW	1	17S-7E
43-015-30590-00-00	ZIONS FED 02-134	Gas Well	EMERY	NWNW	2	17S-7E
43-015-30591-00-00	UTAH FED 12-197	Gas Well	EMERY	SENE	12	17S-7E
43-015-30592-00-00	ST OF UT QQ 31-201 -	Gas Well	EMERY	SESW	31	16S-8E
43-015-30593-00-00	ST OF UT AA 17-155	Gas Well	EMERY	SWSW	17	17S-8E
43-015-30601-00-00	UTAH FED 12-199	Gas Well	EMERY	NESE	12	17S-7E
43-015-30602-00-00	UTAH FED 35-196	Gas Well	EMERY	NENW	35	16S-7E
43-015-30603-00-00	UTAH FED 35-136	Gas Well	EMERY	SWNE	35	16S-7E
43-015-30604-00-00	UT FED 12-200D	Gas Well	EMERY	NESE	12	17S-7E
43-015-30605-00-00	UT FED 12-198D	Gas Well	EMERY	SENE	12	17S-7E
43-015-30606-00-00	ST OF UT QQ 31-204D -	Gas Well	EMERY	SESW	31	16S-8E
43-015-30607-00-00	ST OF UT QQ 31-203D -	Gas Well	EMERY	SESW	31	16S-8E
43-015-30608-00-00	ST OF UT QQ 31-202D -	Gas Well	EMERY	SESW	31	16S-8E
43-015-30609-00-00	ST OF UT HH 23-166	Gas Well	EMERY	NENW	23	17S-8E

## OPERATOR CHANGE WORKSHEET

## ROUTING

1. GLH

2. CDW

3. FILE

## X Change of Operator (Well Sold)

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:

8/1/2004

## FROM: (Old Operator):

N0210-Chevron USA, Inc  
11111 S Wilcrest  
Houston, TX 77099

Phone: 1-(281) 561-4991

## TO: ( New Operator):

N2615-XTO Energy Inc  
2700 Farmington Ave, Bldg K Suite 1  
Farmington, NM 87401

Phone: 1-(505) 324-1090

CA No.

Unit:

## WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	
ZIONS FED 35-135R (RIG SKID)	35	160S	070E	4301530521	13810	Federal	GW	P	C
ZIONS FED 35-137	35	160S	070E	4301530587	13811	Federal	GW	P	C
UTAH FED 35-196	35	160S	070E	4301530602		Federal	GW	APD	C
UTAH FED 35-136	35	160S	070E	4301530603		Federal	GW	APD	C
UT FED KK 01-140	01	170S	070E	4301530507	13553	Federal	GW	P	
UP&L FED 01-101	01	170S	070E	4301530511	13546	Federal	GW	P	
UT FED KK 01-141	01	170S	070E	4301530559	13587	Federal	GW	P	
UTAH FED 01-205D	01	170S	070E	4301530589	13828	Federal	GW	P	C
ZIONS FED 02-134	02	170S	070E	4301530590		Federal	GW	APD	C
UTAH FED 12-197	12	170S	070E	4301530591		Federal	GW	APD	C
UTAH FED 12-199	12	170S	070E	4301530601		Federal	GW	APD	C
UT FED 12-200D	12	170S	070E	4301530604		Federal	GW	APD	C
UT FED 12-198D	12	170S	070E	4301530605		Federal	GW	APD	C
L M LEMMON 10-1	10	170S	080E	4301530242	11724	Fee	GW	P	
L & M CURTIS 10-58	10	180S	070E	4301530310	12201	Fee	GW	TA	
SWD 3	11	180S	070E	4301530303	12915	Fee	WD	I	
UT FED P 12-153	12	180S	070E	4301530551		Federal	GW	APD	C
UP & L 14-53	14	180S	070E	4301530313	12333	Fee	GW	P	
SWD 1	24	180S	070E	4301530272	99990	Fee	WD	A	
A L JENSEN 27-9	27	210S	060E	4301530259	11990	Fee	GW	TA	

## OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the FORMER operator on: 9/28/2004

2. (R649-8-10) Sundry or legal documentation was received from the NEW operator on: 9/28/2004

3. The new company was checked on the Department of Commerce, Division of Corporations Database on: 7/19/2004

4. Is the new operator registered in the State of Utah: YES Business Number: 5655506-0143

5. If NO, the operator was contacted on:

6a. (R649-9-2) Waste Management Plan has been received on: to follow

6b. Inspections of LA PA state/fee well sites complete on: being worked



7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM not yet BIA n/a

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 9/28/2004

**DATA ENTRY:**

1. Changes entered in the Oil and Gas Database on: 9/30/2004
2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 9/30/2004
3. Bond information entered in RBDMS on: 9/30/2004
4. Fee/State wells attached to bond in RBDMS on: 9/30/2004
5. Injection Projects to new operator in RBDMS on: 9/30/2004
6. Receipt of Acceptance of Drilling Procedures for APD/New on: 9/28/2004

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: 579173

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: n/a

**FEE & STATE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The NEW operator of any fee well(s) listed covered by Bond Number 104312762
2. The FORMER operator has requested a release of liability from their bond on: n/a  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The FORMER operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 10/5/2004

**COMMENTS:**



185 07 E 11

RECEIVED

MAY 23 2005

DIV. OF OIL, GAS & MINING

May 19, 2005

Brad Hill, Senior Petroleum Specialist  
State of Utah  
Department of Natural Resources  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, UT 84114-5801

Re: SWD #3, API # 43-015-30303

Dear Mr. Hill:

The SWD #3 was drilled and completed as a disposal well in August, 2000 by Texaco E & P Inc. It is my understanding that this disposal well was deemed unnecessary by the previous operator and thus they withdrew the disposal application and requested to recomplete this well as a producer.

Over, the next few years XTO Energy is planning for an aggressive drill schedule and would like request permission to re-instate the water disposal application. Attached please find copies of the water analysis and bottomhole pressure data that was recently collected with wireline on the SWD #3.

Please contact me if you require additional information or have any questions.

Sincerely,

Trenis Lusk, P.Eng.

Enc.

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY

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CUSTOMER REPORT

## HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

### WATER ANALYSIS

Date Tested:	Apr. 21, 2005	Project #:	V05-W116
Date Received:	Apr. 20, 2005		

Company:	XTO Energy	
Lease/ Well #:	SWD #3	

Sample 4-20-05		
Formation/ Date:		
Specific Gravity		1.006
Temperature	°F	66.4
pH		9.24
Resistivity	$\Omega \cdot m$	0.661
Iron	mg/L	0
Potassium	mg/L	500
Chlorides	mg/L	2035
Calcium	mg/L	25
Magnesium	mg/L	10
Sulfates	mg/L	425
Carbonates	mg/L	900
Bicarbonates	mg/L	4390
Sodium (calculated)	mg/L	3515
TDS	mg/L	11800
Comments:		
Respectfully Submitted By,		
<b>Lori Vian</b>		
Lab Technician		

This report is the property of Halliburton services and neither it nor any part thereof nor copy thereof may be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services.

**NOTICE:** This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

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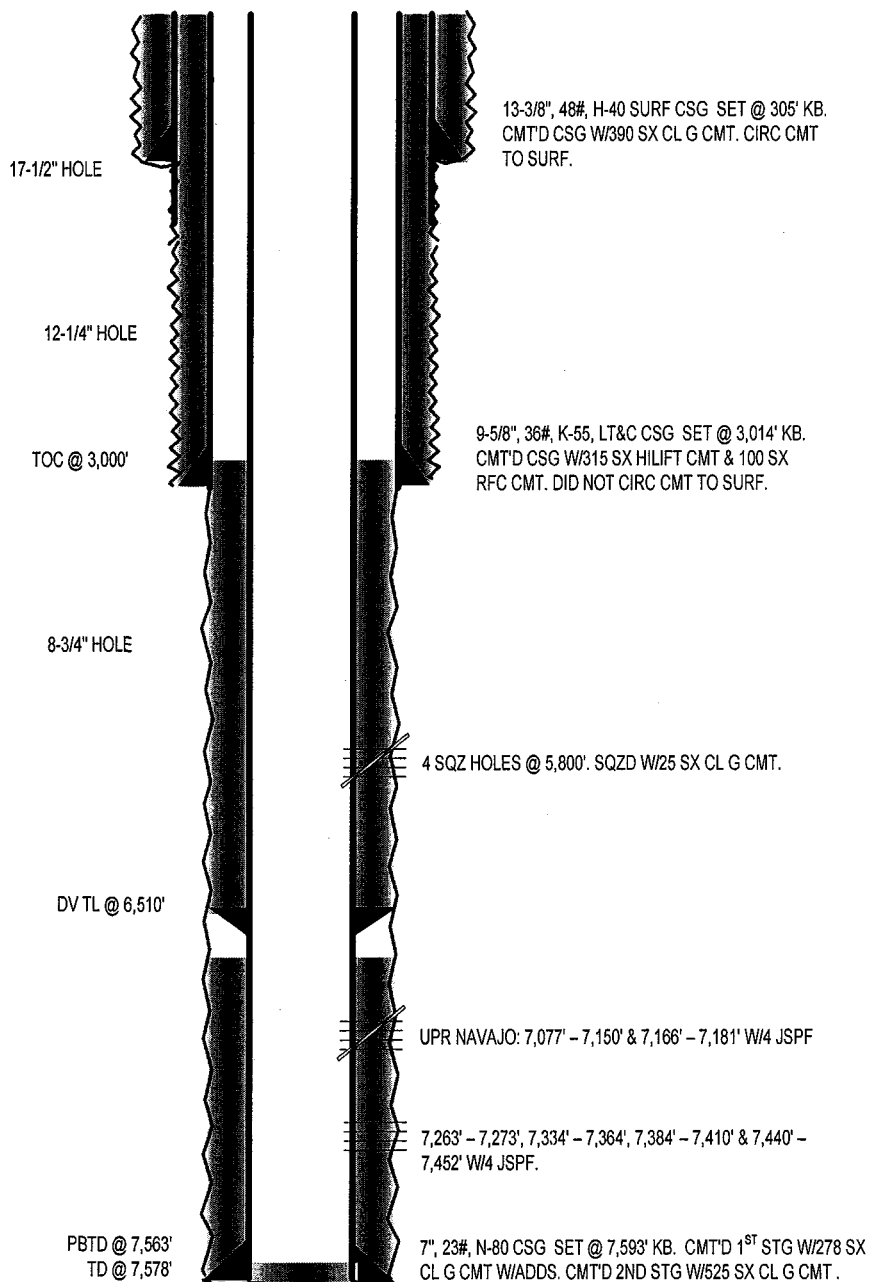
**BJ Chemical Services**  
**Production Water Analysis for**  
**XTO ENERGY, INC., SWD #3 SWAB, HUNTINGTON WATER SYS**  
**Representative: Hoopes, S.L.**

**Sample Date: 4/20/05**

**Lab Test No: 2005400162**

<b>TDS:</b>	17422	
<b>pH:</b>	9.6	
<b>Cations</b>	<b>mg/L</b>	<b>as:</b>
Calcium:	32	Ca
Magnesium:	13	Mg
Sodium:	5674	Na
Iron:	5	Fe
Manganese:	0.1	Mn
<b>Anions</b>	<b>mg/L</b>	<b>as:</b>
Bicarbonate:	2806	HCO3
Carbonate:	100	CO3
Sulfate:	6000	SO4
Chloride:	2832	Cl
<b>Gases:</b>	<b>mg/L</b>	<b>as:</b>
Hydrogen Sulfide:	2	H2S

KB: 6,268'  
GL: 6,254'  
CORR: 14'



## SWD #3 WELLBORE DIAGRAM

### DATA

**LOCATION:** 1,669' FNL & 993' FEL, SE/NE, SEC 11, T-18-S, R-7-E  
**COUNTY/STATE:** EMERY COUNTY, UT  
**FIELD:** FERRON, BUZZARD BENCH  
**FORMATION:** NAVAJO SANDSTONE  
**FEDERAL LEASE:** 579173 **API #:** 43-015-30303  
**SPUD DATE:** 5/30/2000 **COMPL DATE:**

**XTO ACCTG #:**

### TBG:

**PERFS:** UPR NAVAJO: 7,077' - 7,150' & 7,166' - 7,181' W/4 JSPF (SQZD)  
LWR NAVAJO: 7,263' - 73', 7,334' - 64', 7,384' - 7,410' & 7,440' - 52' W/4 JSPF

### HISTORY:

**05/31/00:** SPUDDED 17-1/2" HOLE 05/30/00. DRLD TO 315'. SET 13-3/8", 48#, H-40 LT&C CSG @ 305'. CMTD SURF CSG W/390 SX CL G CMT W/2% S1 & 25#/SK D29. CIRC 33 BBLS CMT TO SURF.

**06/13/00:** DRLD 12-1/4" HOLE TO 3,014'. SET 9-5/8" CSG, 36#, K-55, LT&C CSG @ 3,014'. CMTD CSG W/315 SX HI LIFT CMT W/12% D20, 1% D79, 0.5% D112, 0.2% D48, 0.2% S1 & 1/4#/SK D29 PLUS 155 SX RFC CMT W/1/4#/SK D29. GD RETS. DID NOT CIRC CMT TO SURF. TOC 430' BY TS. PPD 30 BBL CL G CMT W/2% CC CMT TOP JOB. RET 5 BBLS CMT TO RESERVE PIT.

**06/19/00:** DRLD 8-3/4" HOLE TO 3,019'. CORED 3,019' - 49'. DRLD TO 3,064'. CORED 3,064' - 83'. DRLD 8-3/4" HOLE TO 3,149'. LOST CIRC.

**07/09/00:** DRLD 8-3/4" HOLD TO TD OF 7,593'. RAN PLATFORM EXPRESS FR/7,613' (LTD) TO 3,014'. SET 7", 23#, N-80 LT&C CSG @ 7,593'. DV TL @ 6,510'. CMTD 1<sup>ST</sup> STG W/278 SX CL G CMT W/0.1% D13 & 1/4#/SK D29. DID NOT CIRC CMT. CMTD 2<sup>ND</sup> STG W/360 SX CL G CMT W/12% D20, 1% D79 & 0.5% D11 PLUS 165 SX CL G CMT W/10:1 RFC & 1/4#/SK D29. DID NOT CIRC CMT. RLSD DRLG RIG 7:00 AM, 07/11/00.

**08/09/00:** MIRU PU. DO DV TOOL. TIH & TGD @ 6,889'. DO CMT FR/6,889' - 7,563' (PBDT). PT CSG TO 1,000 PSIG. HELD OK. RAN CBL/GR/CCL LOGS FR/7,578' - 500'.

**08/17/00:** PERFD NAVAJO SANDSTONE FR/7,077' - 7,150', 7,166' - 81', 7,263' - 73', 7,334' - 64', 7,384' - 7,410' & 7,440' - 52' W/4 JSPF & 90 DEG PHASING. TIH W/RBP & PKR. SET RBP @ 7,500' & PKR @ 7,044'. BFL @ 100' FS. S. 275 BW. FFL @ 800' FS.

**08/18/00:** RLS PKR. TIH & SET PKR @ 7,296'. A. NAVAJO FR/7,334' - 7,452' W/159 BBLS OF 15% HCL AC & 600 1.1 BS. GD BALL ACTION. AIR 8 BPM. ATP 4,500 PSIG. ISIP 1,200 PSIG. 15" SIP 668 PSIG. RLS PKR. TIH & RLS RBP. PUH & SET RBP @ 7,305' & PKR @ 7,044'. A. NAVAJO FR/7,077' - 7,273' W/107 BBLS 15% HCL AC & 410 1.1 BS. AIR 10.1 BPM. ATP 4,100 PSIG. ISIP 783 PSIG. 15" SIP 293 PSIG. RLS PKR & RBP. TOH.

**08/19/00:** TIH W/BP, 1 JT TBG, BHPB'S, 2 - 4' SUBS, PKR & 2-7/8" TBG. SET PKR @ 7,064'. PPD 1/4 BPM FOR 3 HRS. INJ PSIG CLIMBED FR/78 - 586 PSIG. SWI.

**08/22/00:** PPD 1/4 BPM FOR 3 HRS, INJ PSIG CLIMBED FR/110 - 485 PSIG. PERFORMED STEP RATE TEST (0.5, 1, 2, 3, 4, 6, 8, 10 & 12 BPM FOR 15" EACH). ISIP 4,354 PSIG. 15" SIP 641 PSIG. RLS PKR. TOH.

**08/23/00:** TIH W/3-1/2" X 4' SUB, PKR, ON/OFF TL, XO & 4-1/2" DUOLINE INJ TBG. SET PKR @ 7,059'. EOT @ 7,063'. PT TCA TO 1,000 PSIG, 30". HELD OK.

**10/10/00:** TIH W/2-3/8" TBG. SN @ 6,899'. 10/10 - 24/00 SWBD 2,285 BW. TOH & LD 2-3/8" TBG.

**11/08/00:** MIRU PU. RLS PKR. TOH & LD 4-1/2" DUOLINE TBG.

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**FOR RECORD ONLY**

11/11/00: TIH W/2-7/8" TBG & PKR. SET PKR @ 7,048'. SWBD 277 BW. RLS PKR. TOH. TIH W/1 JT 2-7/8" TBG, SN, 4 JTS TBG, PKR & 231 JTS 2-7/8" TBG. PKR @ 7,294'. SWBD 63 BW FR/LWR NAVAJO. RLS PKR. TOH.

11/15/00: TIH & SET PKR @ 4,533'. SWBD 30 BW. RAN TEMP LOG FR/BTM PERF TO PKR, NO INDICATION OF FLUID ENTRY. DUG OUT SURF CSG VLVS. SWBD 27 BW, NO INDICATION OF COMM W/SURF CSG. RLS PKR. TOH.

11/16/00: TIH & SET RBP @ 7,056'. TOH. DMP SD ON RBP. SHOT 4 HOLES @ 5,800'. EIR @ 2 BPM & 850 PSIG. PPD 31 BW. NO COMM W/SURF CSG. TIH & SET PKR @ 5,859'. RBP DID NOT TST. PPD DWN ANNULUS, PRESS TO 1,500 PSIG. LEAKED OFF TO 680 PSIG IN 20 MIN. RLS PKR. TOH. TIH & RLS RBP. PUH 15'. SET RBP. TIH & SET PKR. PT RBP TO 1,000 PSIG. HELD OK. RLS PKR. TOH.

11/22/00: RAN ULTRASONIC IMAGING TL FR/7,030' – 3,000'. GD CMT. TIH W/2-7/8 TO 6,940'. SPT SD. PUH TO 5,853'. MXD & PPD 25 SX OF CL G CMT. PUH TO 5,667'. REVERSE CIRC TBG CLEAN. PRESS CSG TO 1,423 PSIG. BLED PRESS OFF TO 750 PSIG. TOH.

11/29/00: TIH & TGD HD CMT @ 5,697'. DO CMT FR/5,697' – 5,859'. PT CSG TO 1,000 PSIG. HELD OK. TOH.

12/01/00: TIH & RLS RBP. TIH & TGD @ 7,362'. TOH.

12/04/00: CO FILL FR/7,362' – 7,536'. TOH. TIH & SET PKR @ 7,295'. SWBD 277 BW. RLS PKR. TOH.

12/11/00: TIH & CO FILL FR/7,452' – 7,550'. TOH. TIH & SET PKR @ 7,375'. SWBD 899 BW.

12/18/00: RLS PKR. TOH. TIH W/2-7/8" TBG TO 7,041'. RDMO PU.

02/13/01: SWBD 61 BW.

02/22/01: BFL @ 960' FS. RIH W/BHPB TO 7,020'.

02/23/01: SI SWD #2 FOR 24 HRS.

02/24/01: START SWD #2 FOR 24 HRS. INJ 5,668 BW, TBG 1,167 PSIG.

02/25/01: SI SWD #2 FOR 24 HRS.

02/26/01: START SWD #2 FOR 24 HRS. INJ 5,634 BW, TBG 1,062 PSIG.

02/28/01: SI SWD #1 FOR 24 HRS.

03/01/01: START SWD #1 FOR 24 HRS. INJ 7,819 BW, TBG 1,208 PSIG.

03/02/01: SI SWD #1 FOR 24 HRS.

03/03/01: START SWD #1 FOR 24 HRS. INJ 9,440 BW, TBG 1,260 PSIG.

03/04/01: FL @ 612' FS.

03/05/01: POH BHPB.

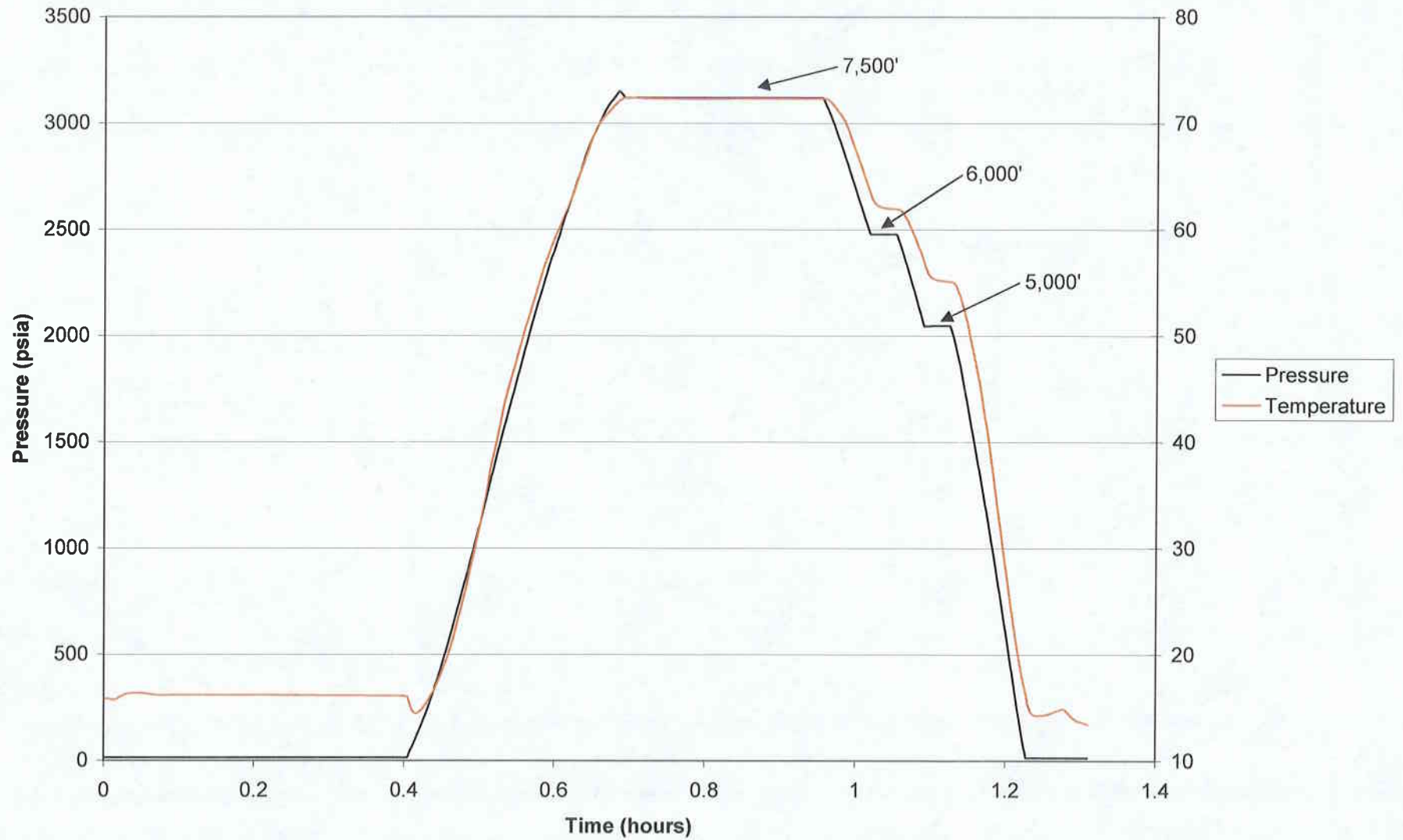
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07/02/01: TIH & DO CMT RET. DO CMT FR/7,012' – 7,159'. SOME SOFT CMT THRU PERFS. PT SQZ PERFS TO 1,100 PSIG. BLED OFF 300 PSIG IN 5". DO CMT FR/7,159' – 7,181'. PT SQZ PERFS. SAME BLEED OFF.

07/09/01: TOH. TIH & RLS RBP. TIH & SET RBP @ 7,460'. PUH & SET PKR @ 7,236'. SWBD 148 BW. SWBD 1,588 BW. RLS PKR. TIH & RLS RBP. TOH & LD TBG, PKR & RBP. RDMO PU.

08/16/04: XTO ENERGY ASSUMED OPERATIONS.

### SWD #3 - Bottomhole Pressure Survey





November 3, 2005

UIC-  
258.1

Mr. Dan Jarvis  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801

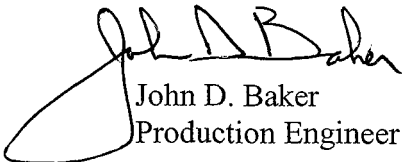
Subject: Application for Injection Well – UIC Form 1  
XTO Energy Inc. Salt Water Disposal Well – SWD #3  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Jarvis:

Enclosed for your review is an injection application for the above caption well. The application includes information necessary to proceed with the public comment period. Please proceed with the public notice announcements.

If you have any questions or require additional assistance, please contact me at (505) 324-1090.

Sincerely,

  
John D. Baker  
Production Engineer

Enclosures

RECEIVED  
NOV 07 2005  
DIV. OF OIL, GAS & MINING



XTO Energy Inc.  
Salt Water Disposal Well Application  
SWD #3

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Regulatory Compliance Record

R649-5-2-

- 2 Application Form 1: Attached form
- 2.1 Plat showing the location of well & ½ Mile radius of exposure: Attached map
- 2.2 Copies of logs (radioactive & electrical) file with the division: Copy of Gamma Ray log on file with the division.
- 2.3 Copy of cement bond logs: Copy of cement bond log on file with the division.
- 2.4 Copies of existing logs: The logs on file with the Division of Natural Resources are; Gamma Ray, Neutron Density, Resistivity, Cement Bond, and Composite Resistivity Neutron Density.
- 2.5 Description of casing: Attached table
- 2.6 Type of fluid, source and estimated volumes / daily to inject: XTO Energy intends to inject produced water from the Buzzard Bench field. The source of this water is the Ferron Formation. The ultimate estimated injection volume is 15,000 bwpd.
- 2.7 Standard lab analysis of fluid Compatibility of the fluids: Attached representative water samples from the SWD #2 dated 4/26/05. Attached water sample dated 4/20/05 from the SWD #3. Attached scaling tendency of mixing the above two waters.
- 2.8 Proposed pressures: Proposed average surface injection pressure is 750 psi. Proposed maximum surface injection pressure is 1,190 psi. The reservoir pressure was determined to be 3,125 psi on 4/20/05. See attach chart.
- 2.9 Evidence and data to support that the well will not initiate fractures to enter fresh water: On 2/02/96, a step-rate injection test was performed on the SWD #1, which is located in Sec. 24, T18S-R7E. The fracture extension pressure in the Navajo Formation was determined to be 0.60 psi/ft. XTO proposed injecting into the SWD #3 at a pressure not to exceed 0.60 psi/ft. The perforation mid-point is 7,357' and the specific gravity of the injected water is 1.01. The resulting calculation of maximum injection pressure yields a value of 1,195.6 psi. XTO proposes an injection pressure not to exceed 1,190 psi.

On 5/30/96, the Navajo Formation in the SWD #1 located in Sec. 24, T18S-7E was hydraulically fractured. The ISIP at the conclusion of the treatment was 2,290 psi. The resulting calculation of the fracture gradient yield a value of 0.77 psi/ft.

← plat is deficient for

How & where collect for both 11/17/05

SRT on SWD #3 by Texaco in 2000 is < .60 psi/ft. so XTO must propose a pressure below 0.57 psi/ft 11/23/05

- 2.10 Geological data: The Navajo Formation is overlain by 812' of Carmel Formation with some shale, minor salt and anhydrite and abundant sandstone with very low porosity which undoubtedly has very low permeability. The Carmel is too tight to transmit fluid through it and any fractures that might be initiated in the Navajo will not continue up through the Carmel to the overlying formations.
- 2.11 Review of mechanical conditions: All of the wells within a one-half mile only penetrate the Ferron Formation. Since the Ferron Formation is 3,800' shallower than the Navajo Sandstone, no conduit exists that could enable the migration of fluids between these formations.
- 2.12 Affidavit certifying copies have been sent to all owners, operators and surface owners within a one-half mile radius: Affidavit enclosed. Attached list of affected individuals and copies of letters mailed.

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

UIC FORM 1

**APPLICATION FOR INJECTION WELL**

Name of Operator XTO Energy Inc.	Utah Account Number N 2615	Well Name and Number SWD #3
Address of Operator 2700 Farmington Ave. CITY Farmington STATE NM ZIP 87401	Phone Number (505) 324-1090	API Number 4301530303
Location of Well Footage : 1669 FNL & 993 FEL County : Emery QQ, Section, Township, Range: SENE 11 18S 7E State : UTAH		Field or Unit Name Buzzard Bench Lease Designation and Number Fee

Is this application for expansion of an existing project? Yes ☐ No ☒

Will the proposed well be used for:	Enhanced Recovery?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Disposal?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Storage?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well, has a casing test been performed? Yes ☐ No ☒  
Date of test: \_\_\_\_\_

Proposed injection interval: from 7,050 to 7,500

Proposed maximum injection: rate 15,000 bpd pressure 1,190 psig

Proposed injection zone contains oil ☐, gas ☐, and / or fresh water ☐ within 1/2 mile of the well.

List of attachments: \_\_\_\_\_

**ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT  
UTAH OIL AND GAS CONSERVATION GENERAL RULES**

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) John D. Baker

Title Production Engineer

Signature 

Date 11/03/05

**RECEIVED**  
**NOV 07 2005**

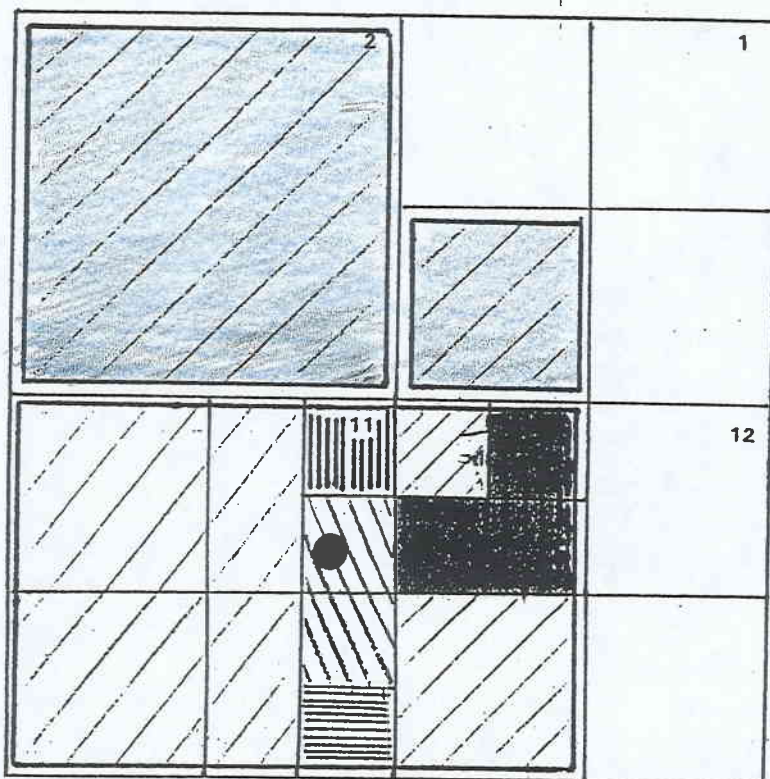
XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090

SWD #3

Requirements R649 - 5 - 2 - 2.1

Plat showing the location of the well, all abandoned or active wells within one-half mile radius of proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.

T-18-S, R-7-E  
Emery County, UT



Oil & Gas Leasehold Owners

XTO Energy Inc.  
2700 Farmington Ave., Bldg K, Suite 1  
Farmington, NM 87401

Williams Production Company  
One Williams Center  
PO Box 3102  
Tulsa, Oklahoma 74101

Kidd Family Partnership Limited  
3838 Oak Lawn Ave., Suite 725  
Dallas, Texas 75219

Security Energy Company  
10000 Memorial Drive, Suite 440  
Houston, Texas 77024

St. Anselm Exploration Company  
1401 17<sup>th</sup> Street, Suite 1400  
Denver, Colorado 80202

Mineral Owners:


State of Utah  
School & Institutional Trust Lands Adm.  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102-2818  
ML-45905 All - Sec. 2, T18S, R7E  
ML-48201 SW/4 - Sec. 1, T18S, R7E


Department of the Interior  
Bureau of Land Management  
PO Box 45155  
Salt Lake City, Utah 84145-0155  
UTU-68535 All - Sec. 11, T18S, R7E &  
W/2 - Sec. 12, T18S, R7E


Anadarko Petroleum Corporation  
(Overriding Royalty only in UTU-68535)  
Box 1330  
Houston, Texas 77251-1330


Surface Owners:

State of Utah  
School & Institutional Trust Lands Adm.  
675 East 500 South, Suite 500


 Salt Lake City, Utah 84102-2818  
All - Sec. 2, T18S, R7E  
SW/4 - Sec. 1, T18S, R7E

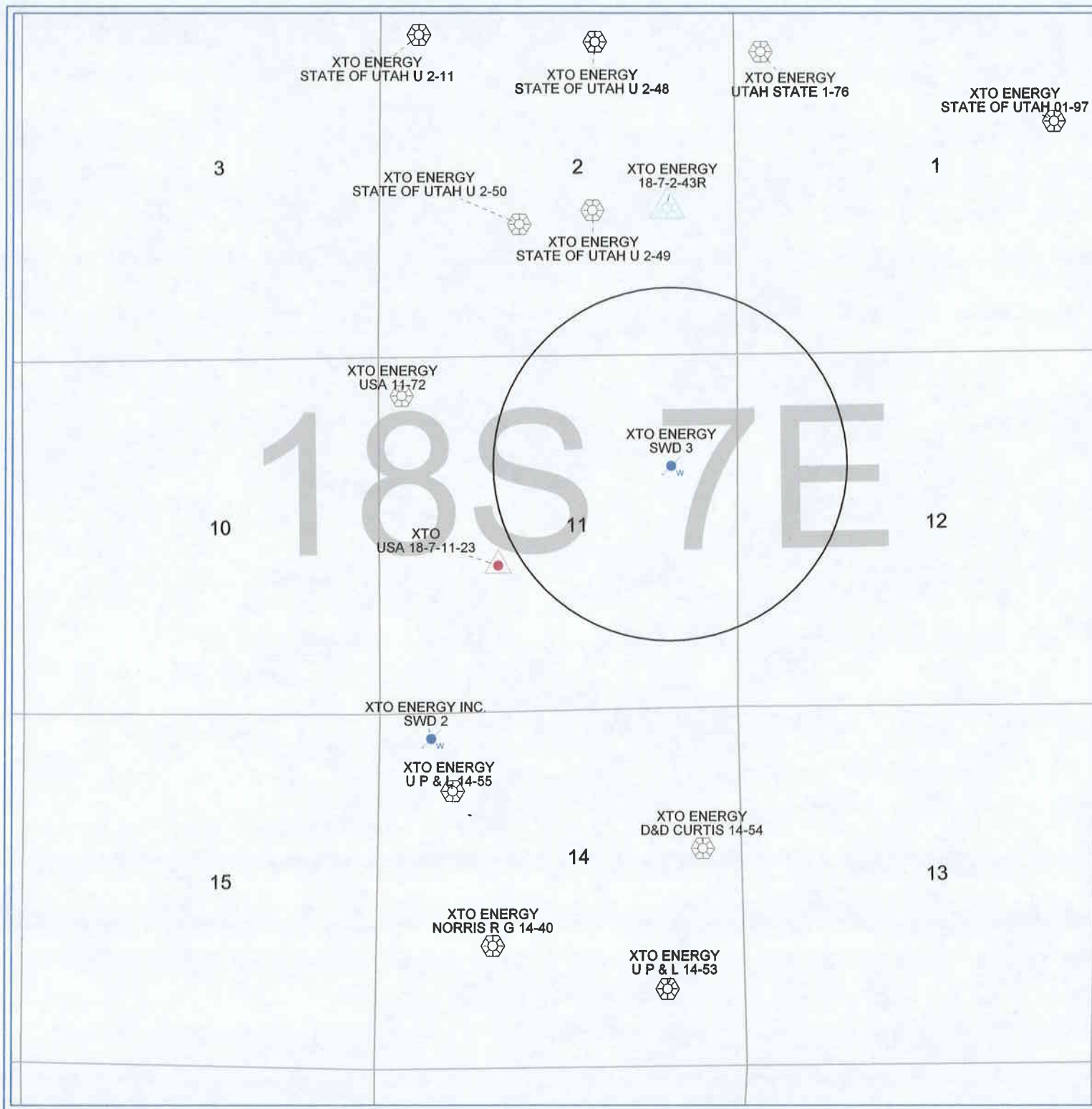
Department of the Interior  
Bureau of Land Management  
 PO Box 45155  
Salt Lake City, Utah 84145-0155  
W/2, W/2, E/2 - Sec. 11, T18S, R7E  
NW/4 NW/4, SW/4 - Sec. 12, T18S, R7E

Rainbow Glass Ranch  
 PO Box 422  
Orangeville, Utah 84537  
S/2 NW/4, NE/4 NW/4 - Sec. 12, T18S, R7E

Donald Roger Curtis & Delores Curtis, Jt. Tenants  
 PO Box 211  
Orangeville, Utah 84537-0211  
SE/4 SE/4 - Sec. 11, T18S, R7E

Joe O. Luke & Carolyn P. Luke, Co-Trustees  
Of the Luke Family Trust dated 2/21/92  
 578 East 1650 South  
Bountiful, Utah 84010

XTO Energy Inc.  
2700 Farmington Ave., Bldg K, Suite 1  
 Farmington, NM 87401  
SE/4 NE/4, NE/4 SE/4 - Sec. 11, T18S, R7E



# XTO ENERGY INC.

S.W.D. #3

SECTION 11, T18S-R7E  
EMERY COUNTY, UTAH

0 2,063  
FEET

POSTED WELL DATA

Operator  
Well Label

WELL SYMBOLS  
Potential Location Only  
Planned Location Only  
Gas Well  
Service Well

September 20, 2005

XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090

SWD #3

Requirements R649 – 5 – 2 – 2.5

Description of the casing and proposed testing procedure

### Existing Casing Configuration

#### TUBULARS IN PLACE BY PREVIOUS OPERATOR

String Type	Hole Size	Measured Depth	Casing Diameter	Weight	Grade	Connection Type
Conductor	26"	50'	20'			BT&C
Surface	17-1/2"	305'	13-3/8"	48#	H-40	LT&C
Intermediate	12-1/4"	3,014'	9-5/8"	36#	K-55	LT&C
Production	8-3/4"	7,393'	7"	23#	N-80	LT&C

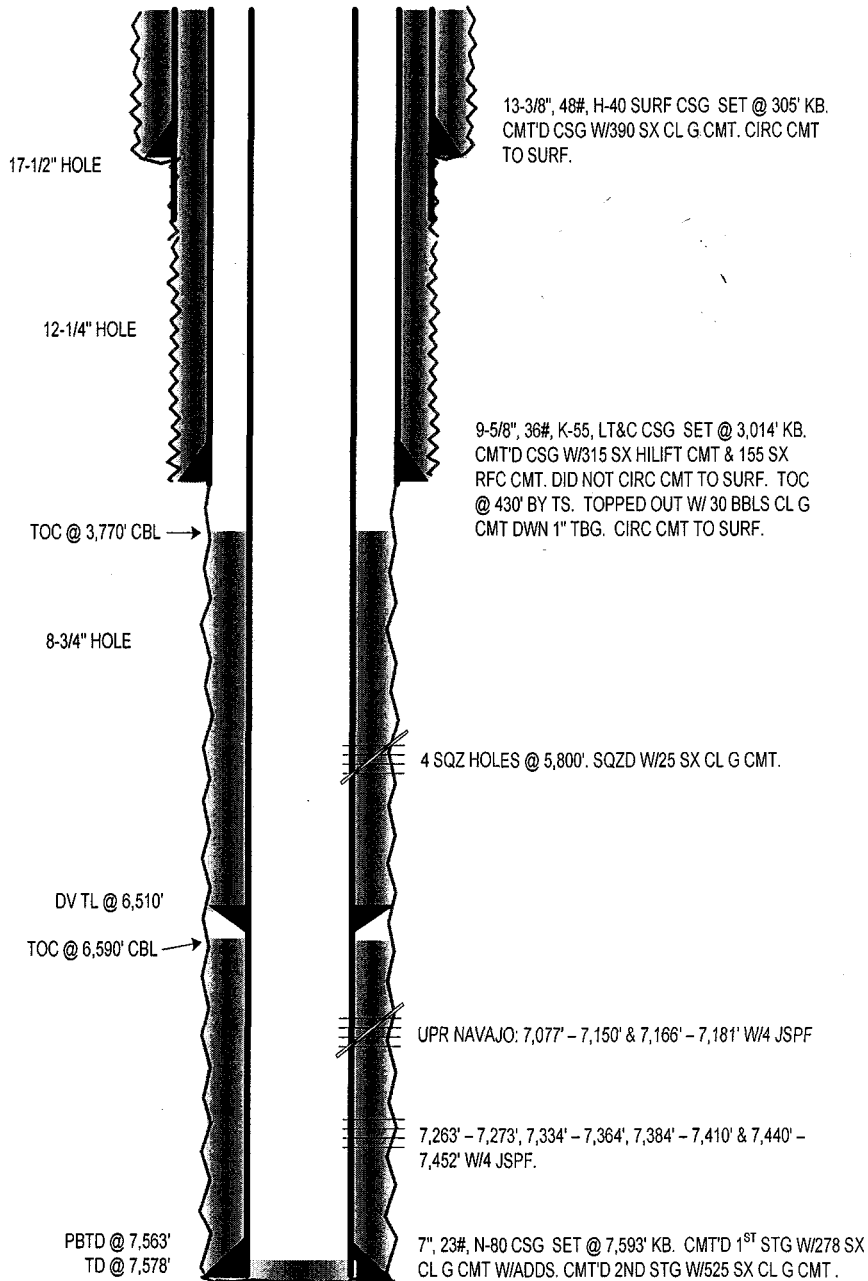
#### CEMENTING HISTORY BY PREVIOUS OPERATOR

String Type	DV Depth	Stage Lead/Tail	Cement Bottom	Cement Top	No. Sacks	Cement Type	Cmt Yield	Cmt Weight
Surface			305'	Surface	390	G	1.15	15.8
Intermediate		Top Out	430'	Surface	145	RFC 10-1	1.15	15.8
		Lead	--	430'	315	HI LIFT	3.59	11.0
		Tail	3,014	--	155	RFC 10-1	1.61	14.2
Production	6,510'	2 <sup>nd</sup> Lead	--	3,770'	360	HI LIFT	3.59	11.0
		2 <sup>nd</sup> Tail	6,510'	--	165	RFC 10-1	1.61	14.2
		1 <sup>st</sup> Lead	7,593'	6,590'	278	G	1.15	15.8

Prior to installing the 4-1/2" injection tubing, XTO Energy will perform a casing MIT at 1,000 psi for 30 minutes.



KB: 6,268'  
GL: 6,254'  
CORR: 14'



## SWD #3 WELLBORE DIAGRAM

### DATA

**LOCATION:** 1,669' FNL & 993' FEL, SE/NE, SEC 11, T-18-S, R-7-E

**COUNTY/STATE:** EMERY COUNTY, UT

**FIELD:** FERRON, BUZZARD BENCH

**FORMATION:** NAVAJO SANDSTONE

**FEDERAL LEASE:** 579173 **API #:** 43-015-30303

**XTO ACCTG #:**

**SPUD DATE:** 5/30/2000

**COMPL DATE:**

**TBG:**

**PERFS:** UPR NAVAJO: 7,077' - 7,150' & 7,166' - 7,181' W/4 JSPF (SQZD)

LWR NAVAJO: 7,263' - 73', 7,334' - 64', 7,384' - 7,410' & 7,440' - 52' W/4 JSPF

### HISTORY:

**05/31/00:** SPUDDED 17-1/2" HOLE 05/30/00. DRLD TO 315'. SET 13-3/8", 48#, H-40 LT&C CSG @ 305'. CMTD SURF CSG W/390 SX CL G CMT W/2% S1 & 25#/SK D29. CIRC 33 BBLS CMT TO SURF.

**06/14/00:** DRLD 12-1/4" HOLE TO 3,014'. SET 9-5/8" CSG, 36#, K-55, LT&C CSG @ 3,014'. CMTD CSG W/315 SX HI LIFT CMT W/12% D20, 1% D79, 0.5% D112, 0.2% D48, 0.2% S1 & 1/4#/SK D29 PLUS 155 SX RFC CMT W/1/4#/SK D29. GD RETS. DID NOT CIRC CMT TO SURF. TOC 430' BY TS. PPD 30 BBL CL G CMT W/2% CC CMT TOP JOB. RET 5 BBLS CMT TO RESERVE PIT.

**06/18/00:** DRLD 8-3/4" HOLE TO 3,019'. CORED 3,019' - 49'. DRLD TO 3,064'. CORED 3,064' - 83'. DRLD 8-3/4" HOLE TO 3,149'. LOST CIRC.

**07/09/00:** DRLD 8-3/4" HOLE TO TD OF 7,593'. RAN PLATFORM EXPRESS FR/7,613' (LTD) TO 3,014'. SET 7", 23#, N-80 LT&C CSG @ 7,593'. DV TL @ 6,510'. CMTD 1<sup>ST</sup> STG W/278 SX CL G CMT W/0.1% D13 & 1/4#/SK D29. DID NOT CIRC CMT. CMTD 2<sup>ND</sup> STG W/360 SX CL G CMT W/12% D20, 1% D79 & 0.5% D11 PLUS 165 SX CL G CMT W/10:1 RFC & 1/4#/SK D29. DID NOT CIRC CMT. RLSD DRLG RIG 7:00 AM, 07/11/00.

**08/09/00:** MIRU PU. DO DV TOOL. TIH & TGD @ 6,889'. DO CMT FR/6,889' - 7,563' (PBTD). PT CSG TO 1,000 PSIG. HELD OK. RAN CBL/GR/CCL LOGS FR/7,578' - 500'.

**08/16/00:** PERFD NAVAJO SANDSTONE FR/7,077' - 7,150', 7,166' - 81', 7,263' - 73', 7,334' - 64', 7,384' - 7,410' & 7,440' - 52' W/4 JSPF & 90 DEG PHASING.

**08/17/00:** TIH W/RBP & PKR. SET RBP @ 7,500' & PKR @ 7,044'. BFL @ 100' FS. S. 275 BW. FFL @ 800' FS.

**08/18/00:** RLS PKR. TIH & SET PKR @ 7,296'. A. NAVAJO FR/7,334' - 7,452' W/159 BBLS OF 15% HCL AC & 600 1.1 BS. GD BALL ACTION. AIR 8 BPM. ATP 4,500 PSIG. ISIP 1,200 PSIG. 15" SIP 668 PSIG. RLS PKR. TIH & RLS RBP. PUH & SET RBP @ 7,305' & PKR @ 7,044'. A. NAVAJO FR/7,077' - 7,273' W/107 BBLS 15% HCL AC & 410 1.1 BS. AIR 10.1 BPM. ATP 4,100 PSIG. ISIP 783 PSIG. 15" SIP 293 PSIG. RLS PKR & RBP. TOH.

**08/23/00:** TIH W/3-1/2" X 4' SUB, PKR, ON/OFF TL, XO & 4-1/2" DUOLINE INJ TBG. SET PKR @ 7,059'. EOT @ 7,063'. PT TCA TO 1,000 PSIG, 30". HELD OK.

**10/10/00:** TIH W/2-3/8" TBG. SN @ 6,899'. 10/10/00 - 10/24/00 SWBD 2,285 BW. TOH & LD 2-3/8" TBG.

**11/08/00:** MIRU PU. RLS PKR. TOH & LD 4-1/2" DUOLINE TBG.

**11/11/00:** TIH W/2-7/8" TBG & PKR. SET PKR @ 7,048'. SWBD 277 BW. RLS PKR. TOH. TIH W/1 JT 2-7/8" TBG, SN, 4 JTS TBG, PKR & 231 JTS 2-7/8" TBG. PKR @ 7,294'. SWBD 63 BW FR/LWR NAVAJO. RLS PKR. TOH.

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12/01/00: TIH & RLS RBP. TIH & TGD @ 7,362'. TOH.

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12/18/00: RLS PKR. TOH. TIH W/2-7/8" TBG TO 7,041'. RDMO PU.

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06/29/01: MXD & PPD 100 SX RFC 10:1 CMT PLUS 125 SX CL G CMT. STGD CMT. STUNG OUT OF RET. UNABLE TO REVERSE OUT CMT. TOH & LD TBG FILLED W/CMT.

07/05/01: TIH & DO CMT RET. DO CMT FR/7,012' – 7,159'; SOME SOFT CMT THRU PERFS. PT SQZ PERFS TO 1,100 PSIG. BLED OFF 300 PSIG IN 5". DO CMT FR/7,159' – 7,181'. PT SQZ PERFS. SAME BLEED OFF.

07/09/01: TOH. TIH & RLS RBP. TIH & SET RBP @ 7,460'. PUH & SET PKR @ 7,236'. SWBD 1,588 BW FR/ 07/09/01 – 07/16/01.

07/17/01: RLS PKR. TIH & RLS RBP. TOH & LD TBG, PKR & RBP. RDMO PU.

08/16/04: XTO ENERGY ASSUMED OPERATIONS.

04/20/05: FTP 0 psig, SICP 0. MIRU BRAN-DEX WLU. RIH 7.0" GR to 7,500'. POH 7.0" GR. RIH 4" BLR & RETR WTR SMPL. NAVAJO SANDS PERFS FR/7,263' – 7,452'. PBD @ 7,563'. POH 4" BLR & RTR SMPL. RDMO BRAN-DEX WLU. SWI @ 11:30 A.M., 4/20 /05.

XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090

SWD #3

Requirements R649 – 5 – 2 – 2.7

Standard laboratory analysis of the fluid to be injected

Analytical Laboratory Report for:



Chemical Services

XTO ENERGY, INC.

Account Representative:  
Hoopes, S.L.

## Production Water Analysis

Listed below please find water analysis report from: Ferron Orangeville Water, SWD #2 SUCTION LINE

Lab Test No: 2005401713      Sample Date: 04/26/2005  
Specific Gravity: 1.008  
TDS: 9819  
pH: 7.50

Cations:	mg/L	as:
Calcium	48.00	(Ca <sup>++</sup> )
Magnesium	20.00	(Mg <sup>++</sup> )
Sodium	3013	(Na <sup>+</sup> )
Iron	2.00	(Fe <sup>++</sup> )
Manganese	0.00	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Bicarbonate	4636	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	0	(SO <sub>4</sub> <sup>=</sup> )
Chloride	2100	(Cl <sup>-</sup> )
Gases:		
Carbon Dioxide		(CO <sub>2</sub> )
Hydrogen Sulfide	0	(H <sub>2</sub> S)

Lab Comments:  
TH704=84ppm

*Produced  
Buzard Bench Field  
Ferron Water?  
from the tank battery*

u fah

CUSTOMER REPORT

## HALLIBURTON ENERGY SERVICES

1085 E. Main/ Vernal, Utah 84078 / Telephone: 435-789-2550 Lab Ext. 552 / Fax: 435-781-7576

### WATER ANALYSIS

with wireline  
Sampled  
Marajo  
Injection Zone  
water?

Date Tested:	Apr. 21, 2005	Project #:	V05-W116
Date Received:	Apr. 20, 2005		

Company:	XTO Energy	
Lease/ Well #:	SWD #3	

Sample 4-20-05		
Formation/ Date:		
Specific Gravity		1.006
Temperature	°F	66.4
pH		9.24
Resistivity	$\Omega \cdot m$	0.661
Iron	mg/L	0
Potassium	mg/L	500
Chlorides	mg/L	2035
Calcium	mg/L	25
Magnesium	mg/L	10
Sulfates	mg/L	425
Carbonates	mg/L	900
Bicarbonates	mg/L	4390
Sodium (calculated)	mg/L	3515
TDS	mg/L	11800
Comments:		
Respectfully Submitted By,		
<b>Lori Vian</b>		
Lab Technician		

<sup>1</sup> This report is the property of Halliburton services and neither it nor any part thereof nor copy thereof may be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services.

**NOTICE:** This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

DownHole SAT(tm)  
MIXED WATER DEPOSITION POTENTIAL INDICATORS

1) SWD #3

2) SWD #2

Report Date: 09-15-2005

## SATURATION LEVEL

Calcite (CaCO3)	69.06
Aragonite (CaCO3)	59.33
Witherite (BaCO3)	0.00
Strontianite (SrCO3)	0.00
Magnesite (MgCO3)	61.17
Anhydrite (CaSO4)	0.00945
Gypsum (CaSO4*2H2O)	0.0146
Barite (BaSO4)	0.00
Magnesium silicate	0.00
Iron hydroxide (Fe(OH)3)	65537
Iron sulfide (FeS)	0.00

## MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO3)	21.75
Aragonite (CaCO3)	21.69
Witherite (BaCO3)	-0.450
Strontianite (SrCO3)	-0.0703
Magnesite (MgCO3)	32.39
Anhydrite (CaSO4)	-611.01
Gypsum (CaSO4*2H2O)	-533.51
Barite (BaSO4)	-0.0469
Magnesium silicate	-91.87
Iron hydroxide (Fe(OH)3)	< 0.001
Iron sulfide (FeS)	-0.00131

## SIMPLE INDICES

Langelier	2.33
Stiff Davis Index	2.20

## BOUND IONS

	TOTAL	FREE
Calcium	60.00	25.43
Barium	0.00	0.00
Carbonate	633.39	250.72
Phosphate	11.00	0.00433
Sulfate	350.00	311.84

## OPERATING CONDITIONS

Temperature (°F)	80.00
Time (mins)	3.00

BJ Chemical Services  
Roosevelt, Utah

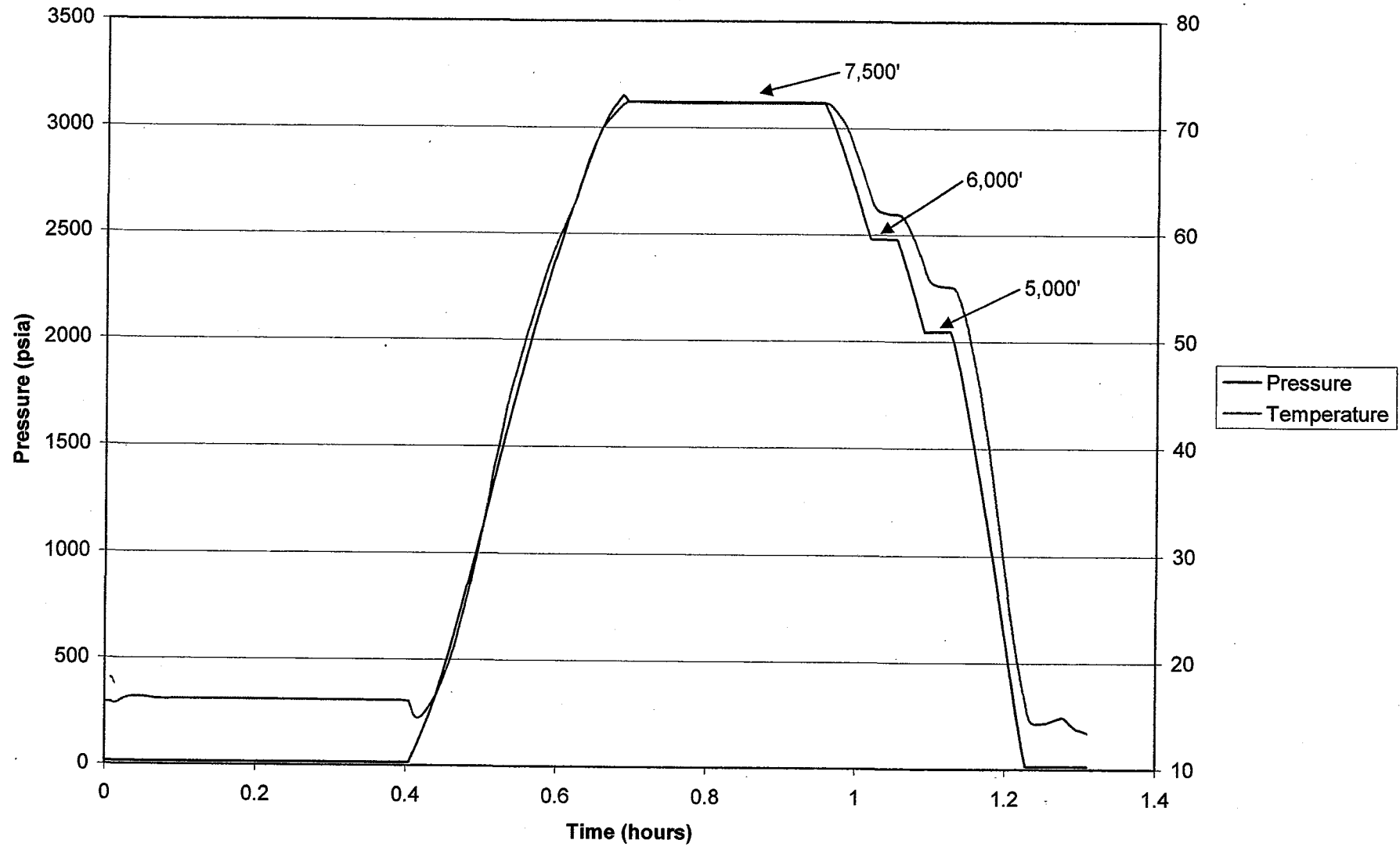
XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090

SWD #3

Requirements R649 – 5 – 2 – 2.8

Proposed Pressures.

### SWD #3 - Bottomhole Pressure Survey



April 20, 2005  
Same date as H<sub>2</sub>O sample taken



XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090

SWD #3

Requirements R649 – 5 – 2 – 2.12

An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.


**Affidavit is Enclosed**

XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090  
FAX (505) 564-6700

SWD #3  
1669' FNL AND 993' FEL  
SE/NE of Section 11, Township 18 South, Range 7 East

I, John D. Baker, Production Engineer for XTO Energy Inc. hereby certify the following:

A copy of the permit application for the above captioned salt water disposal well, has been provided to all surface owners and operators located within a one-half mile radius exposure of the location:


  
\_\_\_\_\_  
John D. Baker  
Production Engineer  
San Juan Division  
XTO Energy Inc.

Subscribed and sworn before me this 3<sup>rd</sup> day of November \_\_\_\_, 2005.

Witness my hand and official seal.



OFFICIAL SEAL  
DIANE G. JARAMILLO  
NOTARY PUBLIC - STATE OF NEW MEXICO  
NOTARY BOND FILED WITH SECRETARY OF STATE  
My commission expires: 7-14-09

  
\_\_\_\_\_  
Notary Public Residing at:  
\_\_\_\_\_  
\_\_\_\_\_

My Commission Expires: 7-14-09



November 17, 2005

Mr. Chris Kierst  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah, 84114-5801

Subject: Application for Injection Well  
XTO Energy Inc. Salt Water Disposal Well – SWD #3  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Kierst:

Enclosed you will find a revised affidavit, Requirement R649-5-2-2.12, and a map indicating that XTO Energy Inc. is the only operator within a one-half mile radius of the SWD #3 well.

If you have any questions or need additional information please contact me or John Baker at (505) 324-1090.

Sincerely,

A handwritten signature in black ink, appearing to read "Diane Jaramillo".

Diane Jaramillo  
Engineer Tech Supervisor

Enclosures

**RECEIVED**

**NOV 25 2005**

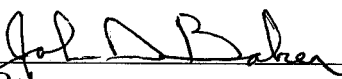
**DIV. OF OIL, GAS & MINING**

XTO ENERGY INC.  
2700 Farmington Ave.  
Building K, Suite 1  
Farmington, NM 87401  
(505) 324-1090  
FAX (505) 564-6700

SWD #3  
1669' FNL AND 993' FEL  
SE/NE of Section 11, Township 18 South, Range 7 East

I, John D. Baker, Production Engineer for XTO Energy Inc. hereby certify the following:

A copy of the permit application for the above captioned salt water disposal well, has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well:


  
\_\_\_\_\_  
John D. Baker  
Production Engineer  
San Juan Division  
XTO Energy Inc.

Subscribed and sworn before me this 17 th day of November \_\_\_\_, 2005.

Witness my hand and official seal.



OFFICIAL SEAL  
DIANE G. JARAMILLO  
NOTARY PUBLIC - STATE OF NEW MEXICO  
NOTARY BOND FILED WITH SECRETARY OF STATE  
My commission expires: 7-14-09

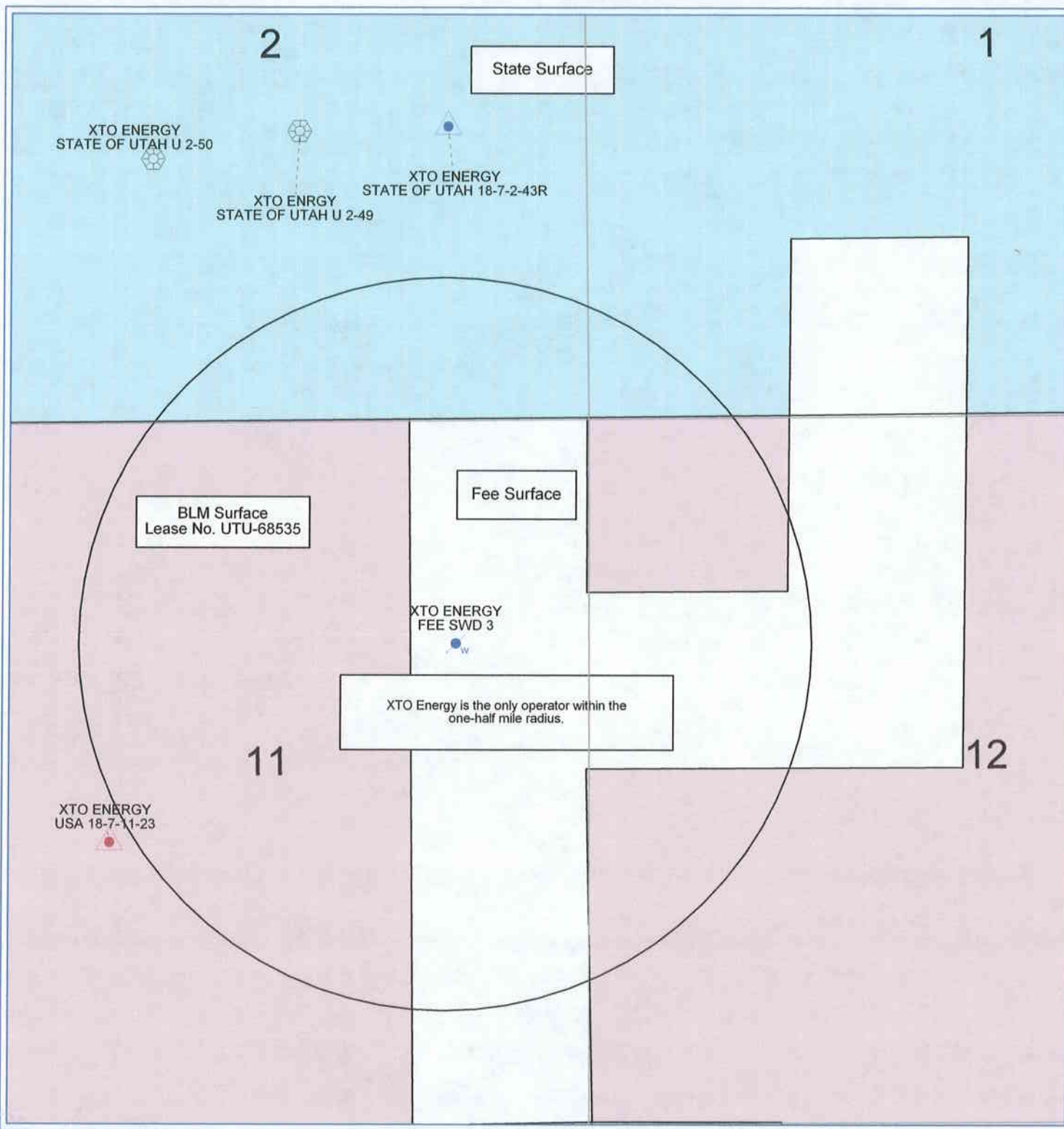
  
\_\_\_\_\_  
Notary Public Residing at:  
\_\_\_\_\_  
\_\_\_\_\_

My Commission Expires: 7-14-09

RECEIVED

NOV 25 2005

DIV. OF OIL, GAS & MINING



# XTO ENERGY INC.

S.W.D. #3

SECTION 11, T18S-R7E

EMERY COUNTY, UTAH



## POSTED WELL DATA

Operator  
Well Label

- WELL SYMBOLS
- 06 LOC
  - Planned Location Only
  - Gas Well
  - Service Well

November 17, 2005



ST MAIL AND DIST SVC 12/02/2005



HASLER

017H15503323

**\$0.370**

11/30/2005

Mailed From 87401

US POSTAGE

Mr. Chris Kierst  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah, 84114-5801

84114+5801-01



2700 Farmington Avenue  
Building K, Suite 1  
Farmington, New Mexico 87401



November 29, 2005

Mr. Chris Kierst  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah, 84114-5801

Subject: Application for Injection Well  
XTO Energy Inc. Salt Water Disposal Well – SWD #3  
SE/NE of Section 11, Township 18S, Range 7E, Emery County, Utah

Dear Mr. Kierst:

Enclosed you will find revisions on the UIC Form 1 and Regulatory Compliance Record R649-5-2-2.9, as requested.

If you have any questions or need additional information please contact me or John Baker at (505) 324-1090.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Diane Jaramillo'.

Diane Jaramillo  
Engineer Tech Supervisor

Enclosures



**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

UIC FORM 1

**APPLICATION FOR INJECTION WELL**

Name of Operator XTO Energy Inc.	Utah Account Number N 2615	Well Name and Number SWD #3
Address of Operator 2700 Farmington Ave. CITY Farmington STATE NM ZIP 87401	Phone Number	API Number 4301530303
Location of Well Footage : 1669 FNL & 993 FEL County : Emery QQ, Section, Township, Range: SENE 11 18S 7E State : UTAH		Field or Unit Name Buzzard Bench Lease Designation and Number

Is this application for expansion of an existing project? Yes ☐ No ☒

Will the proposed well be used for:	Enhanced Recovery?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Disposal?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Storage?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well, has a casing test been performed? Yes ☐ No ☒  
Date of test: \_\_\_\_\_

Proposed injection interval: from 7,050 to 7,500

Proposed maximum injection: rate 15,000 bpd pressure 980 psig

Proposed injection zone contains oil ☐, gas ☐, and / or fresh water ☐ within ½ mile of the well.

List of attachments: \_\_\_\_\_  
\_\_\_\_\_

**ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT  
UTAH OIL AND GAS CONSERVATION GENERAL RULES**

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) John D. Baker

Title Production Engineer

Signature 

Date 11/29/05

XTO Energy Inc.  
Salt Water Disposal Well Application  
SWD #3

---

Regulatory Compliance Record

R649-5-2-

- 2 Application Form 1: Attached form
- 2.1 Plat showing the location of well & ½ Mile radius of exposure: Attached map
- 2.2 Copies of logs (radioactive & electrical) file with the division: Copy of Gamma Ray log on file with the division.
- 2.3 Copy of cement bond logs: Copy of cement bond log on file with the division.
- 2.4 Copies of existing logs: The logs on file with the Division of Natural Resources are; Gamma Ray, Neutron Density, Resistivity, Cement Bond, and Composite Resistivity Neutron Density.
- 2.5 Description of casing: Attached table
- 2.6 Type of fluid, source and estimated volumes / daily to inject: XTO Energy intends to inject produced water from the Buzzard Bench field. The source of this water is the Ferron Formation. The ultimate estimated injection volume is 15,000 bwpd.
- 2.7 Standard lab analysis of fluid Compatibility of the fluids: Attached representative water samples from the SWD #2 dated 4/26/05. Attached water sample dated 4/20/05 from the SWD #3. Attached scaling tendency of mixing the above two waters.
- 2.8 Proposed pressures: Proposed average surface injection pressure is 750 psi. Proposed maximum surface injection pressure is 1,190 psi. The reservoir pressure was determined to be 3,125 psi on 4/20/05. See attach chart. 980 *Called John Baker of XTO to verify that he meant 980 rather than 1190. He did. 4/12/05*
- 2.9 Evidence and data to support that the well will not initiate fractures to enter fresh water: On August 18, 2000, a step-rate injection test was performed on the SWD #3. The test was performed by Northern Lights Energy and analyzed by Schlumberger. (A copy of this test is on file with the Division of Oil, Gas & Mining.) At a pressure gauge depth of 7,064', the fracture extension pressure was determined to be 4,000 psig. The resulting fracture extension pressure gradient of the Navajo Formation is 0.57 psi/ft. XTO proposes injecting into the SWD #3 at a pressure not to exceed 0.57 psi/ft. The perforation mid-point is 7,357' and the specific gravity of the injected water is 1.01. The resulting calculation of maximum injection pressure yields a value of 981 psig. XTO proposes an injection pressure not to exceed 980 psig.

- 2.10 Geological data: The Navajo Formation is overlain by 812' of Carmel Formation with some shale, minor salt and anhydrite and abundant sandstone with very low porosity which undoubtedly has very low permeability. The Carmel is too tight to transmit fluid through it and any fractures that might be initiated in the Navajo will not continue up through the Carmel to the overlying formations.
- 2.11 Review of mechanical conditions: All of the wells within a one-half mile only penetrate the Ferron Formation. Since the Ferron Formation is 3,800' shallower than the Navajo Sandstone, no conduit exists that could enable the migration of fluids between these formations.
- 2.12 Affidavit certifying copies have been sent to all owners, operators and surface owners within a one-half mile radius: Affidavit enclosed. Attached list of affected individuals and copies of letters mailed.

BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH

---

IN THE MATTER OF THE	:	
APPLICATION OF XTO ENERGY INC	:	NOTICE OF AGENCY ACTION
FOR ADMINISTRATIVE APPROVAL OF	:	
THE SWD #3 WELL LOCATED IN	:	CAUSE NO. UIC 258.1
SECTION 11, TOWNSHIP 18 SOUTH,	:	
RANGE 7 EAST, EMERY COUNTY,	:	
UTAH, AS A CLASS II INJECTION	:	
WELL	:	

---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of XTO Energy Inc for administrative approval of the SWD #3 well, located in Section 11, Township 18 South, Range 7 East, Emery County, Utah, for conversion to a Class II injection well. The adjudicative proceeding will be conducted informally according to Utah Admin.Rule R649-10, Administrative Procedures.

Selective zones in the Navajo and Kayenta Formations will be used for water injection. The maximum injection pressure and rate will be determined based on fracture gradient information submitted by XTO Energy Inc.

Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for this proceeding is Gil Hunt, Associate Director at PO Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 20th day of January, 2006.

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING

  
\_\_\_\_\_  
Gil Hunt  
Associate Director

**XTO Energy Inc**  
**SWD #3**  
**Cause No. UIC 258.1**

Publication Notices were sent to the following:

XTO Energy Inc  
2700 Farmington Ave Bldg K Ste 1  
Farmington, NM 87401

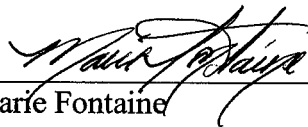
Emery County Progress (435) 381-2431  
410 East Main Street, Suite B  
Castle Dale, UT 84513

via E-Mail and Facsimile (801) 237-2577)  
Salt Lake Tribune  
PO Box 45838  
Salt Lake City, UT 84145

BLM, Price District Office  
Bureau of Land Management  
125 South 600 West  
Price, UT 84501

Carbon County Planning  
120 East Main  
Price, UT 84501

Dan Jackson  
US EPA Region VIII, Suite 5000  
999 18th Street  
Denver, CO 80202-2466

  
\_\_\_\_\_  
Marie Fontaine  
Executive Secretary  
January 20, 2006



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

January 20th, 2006

SENT VIA E-MAIL AND FAX

Emery County Progress (435) 381-2431  
410 East Main Street, Suite B  
Castle Dale, UT 84513

Re: Notice of Agency Action - Cause No. UIC 258.1

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, Suite 1210, PO Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Marie Fontaine  
Executive Secretary

encl.



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

January 20th, 2006

SENT VIA E-MAIL AND FAX (801) 237-2577

Salt Lake Tribune  
PO Box 45838  
Salt Lake City, UT 84145

Re: Notice of Agency Action - Cause No. UIC 258.1

Gentlemen:

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Sincerely,

A handwritten signature in cursive script, appearing to read "Marie Fontaine".

Marie Fontaine  
Executive Secretary

encl.

**AFFIDAVIT OF PUBLICATION**

STATE OF UTAH)

ss.

County of Emery,)

I, Richard Shaw, on oath, say that I am the General Manager of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 24th day of January, 2006 and that the last publication of such notice was in the issue of such newspaper dated the 24th day of January, 2006.



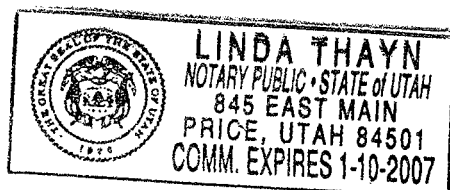
Richard Shaw - General Manager

Subscribed and sworn to before me this 24th day of January, 2006.



Notary Public My commission expires January 10, 2007 Residing at Price, Utah

Publication fee, \$71.52



**NOTICE OF AGENCY ACTION**

CAUSE NO. UIC 258.1

**BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH**

IN THE MATTER OF THE APPLICATION OF XTO ENERGY INC. FOR ADMINISTRATIVE APPROVAL OF THE SWD #3 WELL LOCATED IN SECTION 11, TOWNSHIP 18 SOUTH, RANGE 7 EAST, EMERY COUNTY, UTAH, AS A CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of XTO Energy Inc. for administrative approval of the SWD #3 well, located in Section 11, Township 18 South, Range 7 East, Emery County, Utah, for conversion to a Class II Injection Well. The adjudicative proceeding will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selective zones in the Navajo and Kayenta Formations will be used for water injection. The maximum injection pressure and rate will be determined based on fracture gradient information submitted to XTO Energy Inc.

Any person desiring to object to the proposed application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for this proceeding is Gil Hunt, Associate Director at PO Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 20th day of January, 2006.

State of Utah  
Division of Oil, Gas & Mining  
-s- Gil Hunt  
Associate Director

Published in the Emery County Progress January 24, 2006.



# Newspaper Agency Corporation

4770 S. 5600 W.  
P.O. BOX 704005

The Salt Lake Tribune

DESERET  
Morning News

CUSTOMER'S  
COPY

WEST VALLEY CITY, UTAH 84170  
FED. TAX I.D.# 87-0217663

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	D5385340L-07	01/26/06

RECEIVED  
FEB 01 2006

ACCOUNT NAME	
DIV OF OIL-GAS & MINING	
TELEPHONE	INVOICE NUMBER
801-538-5340	TL8202YE5Y1
SCHEDULE	
START 01/26/06 END 01/26/06	
CUST. REF. NO.	
CAPTION	
BEFORE THE DIVISION OF OIL, GA	
SIZE	
54 LINES 2.00 COLUMN	
TIMES	RATE
1	1.25
MISC. CHARGES	AD CHARGES
.00	140.00
TOTAL COST	
140.00	

DIV. OF OIL, GAS & MINING

BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH  
NOTICE OF AGENCY ACTION  
CAUSE NO. UIC 258.15.01

IN THE MATTER OF THE APPLICATION OF XTO ENERGY INC. FOR ADMINISTRATIVE APPROVAL OF THE SWD #3 WELL LOCATED IN SECTION 11, TOWNSHIP 18 SOUTH, RANGE 7 EAST, EMERY COUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER:

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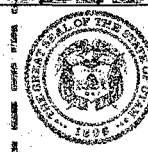
## AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY CORPORATION LEGAL BOOKKEEPER, I CERTIFY THAT ADVERTISEMENT OF BEFORE THE DIVISION OF OIL, GA DIV OF OIL-GAS & MINING WAS PUBLISHED BY THE NEWSPAPER CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

PUBLISHED ON 01/26/06 START 01/26/06 END 01/26/06

SIGNATURE [Signature]

DATE 01/26/06



Notary Public  
SHERI Z. EARL  
143 South Main Street  
Salt Lake City, Utah 84111  
My Commission Expires  
May 24, 2009  
State of Utah

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"  
PLEASE PAY FROM BILLING STATEMENT.

2827/REC/NUADG01G/GED6/6131

## INJECTION WELL - PRESSURE TEST

Well Name: <u>SWD #3</u>	API Number: <u>4301530303</u>
Qtr/Qtr: <u>SENE</u> Section: <u>11</u>	Township: <u>18 S</u> Range: <u>7E</u>
Company Name: <u>XTO Energy Inc</u>	
Lease: State <u>X</u> Fee _____	Federal _____ Indian _____
Inspector: <u>Mark I Jones</u>	Date: <u>8/2/2007</u>

## Initial Conditions:

Tubing - Rate: 0 Pressure: 0 psiCasing/Tubing Annulus - Pressure: 0 psi

## Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0	<u>1000 #</u>	<u>0 #</u>
5	_____	_____
10	_____	_____
15	<u>1000 #</u>	<u>0 #</u>
20	_____	_____
25	_____	_____
30	<u>1000 #</u>	<u>0 #</u>

Results: Pass/Fail

## Conditions After Test:

Tubing Pressure: 0 psiCasing/Tubing Annulus Pressure: 0 psi

COMMENTS: \_\_\_\_\_

Packer set @ 7030'

Perfs between 7077' - 7452'

Operator Representative \_\_\_\_\_

\*Chuck Gardner (XTO company man)



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

November 5, 2007

Lisa Winn  
XTO Energy Inc.  
2700 Farmington Avenue  
Building K, Suite 1  
Farmington, New Mexico 87401

Re: Approval to Operate – SWD 3 Emergency Pit / Facility  
SENE Section 11, Township 18 South, Range 7 East, Emery County, Utah

Dear Ms. Winn:

On June 19, 2007, approval to construct the SWD 3 Emergency Pit/Facility (“the Pit/Facility”) was granted by the Division of Oil, Gas & Mining (“the Division”). Having met all the technical permit requirements of R649-9, et al, final approval to operate the Pit/Facility is hereby granted. The Pit/Facility shall be used on an “emergency” basis only; if the associated well (SWD 3/43-015-30303) is down for repair or other emergency.

It is required that a minimum of 2 feet of freeboard be maintained in the Pit at all times, and that a method of obviously displaying the freeboard be devised. In addition, the Pit is to be maintained such that hydrocarbons do not collect on the surface and curtail evaporation.

The leak detection system must be checked weekly. Any leak must be reported to the Division immediately, and corrective measures must be taken. Quarterly reports must be filed that contain a record of the leak detection system inspections. Failure to report as outlined herein will be considered a violation. In addition, Division personnel will conduct periodic visual inspections of the Pit/Facility, and leak detection system.

Diversion ditches and/or berms shall be inspected regularly to ensure integrity.

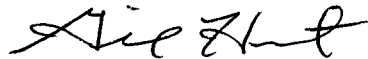
Issuance of this permit does not supersede local ordinances, county planning and zoning requirements, or other permits required to conduct business at the site.



A copy of this approval should be kept at the XTO Energy Inc. field office, and field personnel should be aware of the conditions of approval.

Should you have any questions, please contact Lisha Cordova at (801) 538-5296 or Brad Hill at (801) 538-5315.

Sincerely,



Gil Hunt  
Associate Director, Oil & Gas

LC/js

Enclosure (1): Quarterly Report

cc: Brad Hill, Permitting Manager  
Dan Jarvis, Operations Manager  
Bart Kettle, Price Office  
Ray Trujillo (XTO/Orangeville Utah Field Office)  
Cody Kerrigan, Project Engineer (Pearl Field Services, LLC)  
Megan L. Crow, P.E. (Pearl Field Services, LLC)  
Emery County Planning Office  
*Well* ~~Bond~~ File  
Facility File

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: XTO ENERGY INC.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 382 CR 3100 CITY AZTEC STATE NM ZIP 87410		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: (505) 333-3100		8. WELL NAME and NUMBER: SWD #3
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1669' FNL & 993' FEL		9. API NUMBER: 4301530303
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 11 18S 7E		10. FIELD AND POOL, OR WILDCAT: BUZZARD BENCH
COUNTY: EMERY		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 2/7/2008	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: 1ST DELIVERY
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

XTO Energy Inc. delivered this well @ 10:00 a.m. on 2/07/08. This well is an injection well in Orangeville Utah.

NAME (PLEASE PRINT) DOLENA JOHNSON	TITLE OFFICE CLERK
SIGNATURE 	DATE 2/11/2008

(This space for State use only)

RECEIVED

FEB 15 2008

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>SWD #3</u>		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: XTO Energy, Inc		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1095 N. SR 57 POB 618 CITY Orangeville STATE UT ZIP 84078		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: (435) 748-5395		8. WELL NAME and NUMBER: SWD # 3
4. LOCATION OF WELL FOOTAGES AT SURFACE: <u>1669 FNL 0993 FEL</u>		9. API NUMBER: 4301530323 <u>4301530303</u>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <u>SENE 11 18S 7E</u>		10. FIELD AND POOL, OR WILDCAT:

COUNTY: Emery County

STATE: UTAH

## 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>7/1/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>pit closure</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

## 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

It has been determined that we will no longer use the pit at SWD #3. We will be using 2-500 bbl tanks in place of the pits. We will be removing the liner and disposing of it at an approved facility and sampling the soil beneath the pits. We will fill the pits and reclaim according to State recommendations.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 06-08-10By: [Signature]

COPY SENT TO OPERATOR

Date: 6/16/2010Initials: KSNAME (PLEASE PRINT) Misty JorgensenTITLE Environmental SpecialistSIGNATURE [Signature]DATE 6/7/2010

(This space for State use only)

**RECEIVED****JUN 08 2010**

DIV. OF OIL, GAS &amp; MINING

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> FEE
<b>1. TYPE OF WELL</b> Water Disposal Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> XTO ENERGY INC		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> 382 Road 3100 , Aztec, NM, 87410		<b>8. WELL NAME and NUMBER:</b> SWD 3
<b>PHONE NUMBER:</b> 505 333-3159 Ext		<b>9. API NUMBER:</b> 43015303030000
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1669 FNL 0993 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 11 Township: 18.0S Range: 07.0E Meridian: S		<b>9. FIELD and POOL or WILDCAT:</b> BUZZARD BENCH
		<b>COUNTY:</b> EMERY
		<b>STATE:</b> UTAH
<b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	
<input checked="" type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion: 10/25/2010	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION	
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	OTHER: <input type="text" value="PIT CLOSURE"/>	
<b>12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.</b> XTO Energy has closed the pit @ SWD #3 per the following: 8/18/2010: MIRU Nielson Const. Service. Liner was disposed of at the ECDC disposal. Soil samples were taken; they met state requirements. 8/24/2010: Pit closed. RDMO Nielson Construction. 9/8/2010: MI, set two 500 bbl tks, moved station around on landing, suspend report until further activity. 10/25/2010: Reseeded @ 6 lbs. per acre w/state approved seed mix as per Jim Davis.		
<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY</b>		
<b>NAME (PLEASE PRINT)</b> Barbara Nicol		<b>PHONE NUMBER</b> 505 333-3642
<b>SIGNATURE</b> N/A		<b>TITLE</b> Regulatory Compliance Tech
		<b>DATE</b> 2/9/2011



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

February 25, 2013

XTO Energy Inc  
382 CR 3100  
Aztec, NM 87410

18S 7E 11

SUBJECT: Pressure Test for Mechanical Integrity, SWD 3 (API# 43-015-30303) and SWD 4 (API# 43-015-30490) Wells, Emery County, Utah:

#### To Whom It May Concern:

The Underground Injection Control Program, which the Division of Oil, Gas and Mining (DOGM) administers in Utah, requires that all Class II injection wells demonstrate mechanical integrity. Rule R649-5-5.3 of the Oil and Gas Conservation General Rules requires that the casing-tubing annulus above the packer be pressure tested at a pressure equal to the maximum authorized injection pressure or 1,000 psi, whichever is lesser, provided that no test pressure is less than 300 psi. This test shall be performed at least every five-year period beginning October 1982. The following wells require a current test:

SWD 3	43-015-30303
SWD 4	43-015-30490

Please make arrangements and ready wells for testing during the week of April 1st, 2013, as outlined below:

1. Operator must furnish connections, and accurate pressure gauges, hot oil truck (or other means of pressuring annulus), along with personnel to assist in opening valves, etc.
2. The casing-tubing annulus shall be filled prior to the test date to expedite testing, as each well will be required to hold pressure for a minimum of 15 minutes.
3. If mechanical difficulties or workover operations make it impossible for the well(s) to be tested on this date the test(s) may be rescheduled.
4. Company personnel should meet a DOGM representative(s) at the field office or other location as negotiated.





5. All bradenhead valves with exception of the tubing on the injection well(s) must be shut-in 24 hours prior to testing.

Please contact me at (435) 820-0862 to arrange a meeting time and place or to negotiate a different date, if the date(s) specified is unacceptable.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bart Kettle', with a long horizontal flourish extending to the right.

Bart Kettle  
Environmental Scientist

bk/dj/js

cc: Dan Jarvis, Operations Manager  
Well File

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: SWD 3	
2. NAME OF OPERATOR: XTO ENERGY INC	9. API NUMBER: 43015303030000	
3. ADDRESS OF OPERATOR: PO Box 6501, Englewood, CO, 80155	PHONE NUMBER: 303 397-3727 Ext	9. FIELD and POOL or WILDCAT: BUZZARD BENCH
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1669 FNL 0993 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 11 Township: 18.0S Range: 07.0E Meridian: S	COUNTY: EMERY	
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input type="text" value="MIT"/>
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 4/4/2013			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

In response to your letter dated 2/25/2013, and maintaining compliance with Rule R649-5-5.3 of the Oil and Gas Conservation General Rules, XTO conducted a MIT on this well 4/4/2013 per the following: MIRU B & C Quik Test. NU to csg. PT line to 1,550 psig, gd tst. Pmp 10 gal TFW w/adds. PT csg to 1,000 psig (30") gd tst. Bleed off pressure. ND fr csg. ITP 870 psig. SICP 0 psig. RDMO B & C Quik Test. Please see the attached MIT chart.

**Accepted by the  
Utah Division of  
Oil, Gas and Mining**

Date: May 14, 2013

By: 

NAME (PLEASE PRINT) Barbara Nicol	PHONE NUMBER 303-397-3736	TITLE Regulatory Compliance Tech
SIGNATURE N/A		DATE 4/11/2013



